

1006496

City of Birmingham

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1934

BIRMINGHAM :
TEMPLAR PRINTING WORKS, EDMUND STREET.

1935

A faint, out-of-focus background image of an open book. The left page contains the text 'Digitized by the Internet Archive' and 'in 2017 with funding from'. The right page contains the text 'Wellcome Library'.

Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

<https://archive.org/details/b28928738>

City of Birmingham.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1934

BIRMINGHAM:
TEMPLAR PRINTING WORKS, EDMUND STREET.

1935

TABLE OF CONTENTS

(FOR INDEX SEE PAGE 160).

	Page.
Introduction ...	5
I.—STATISTICS	
Area and Population	7
Number of Houses	7
Deaths	8
Mortality by Age and Sex	9
Mortality in Wards	10
Principal Causes of Death	12
Cancer	12
Heart Disease	14
Bronchitis and Pneumonia	15
II.—GENERAL PROVISION OF HEALTH SERVICES.	
Public Health Officers	17
Consultations with Voluntary Hospitals	18
Poor Law Medical Out Relief	18
Institutional Provision for the Care of Mental Defectives	18
Nursing in the Home	18
Midwives	18
Bacteriological Laboratory	19
Analytical Laboratory	19
New Legislation in Force	19
Hospitals	20
Co-operation with Voluntary Hospitals	21
City General Hospitals	21
Dudley Road Hospital	22
Selly Oak Hospital	23
Selly Oak Infirmary	24
General Convalescent Homes	24
Maternity and Nursing Homes	25
Unmarried Mothers and Illegitimate Children	25
Maternal Mortality	25
Health Visiting	25
Children Act, 1908, Children and Young Persons' Acts, 1932 and 1933	25
Blind Persons Act	25
Removal of Infirm and Aged Persons	26
III.—SANITARY CIRCUMSTANCES	
Water Supply	27
Wells	27
Rivers and Streams	27
Sewerage	27
Closet Accommodation and Scavenging and Refuse Disposal	28
Sanitary Inspection	29
Rats and Mice	30
Factories and Workshops	31
Smoke Abatement	31
Offensive Trades	32
Common Lodging Houses	32
Houses Let in Lodgings	32
Tents, Vans and Sheds	33
Canal Boats	33
Shops Acts	34
Mortuary, Summer Lane	35
IV.—HOUSING	
New Houses Built	36
No. of existing Houses	37
Action in respect of Individual Dwelling Houses	37
Action in Respect of Clearance Areas	38
Overcrowding	39
V.—INSPECTION AND SUPERVISION OF FOOD	
Food Premises	41
Ice Cream	41
Milk Supply	41
Milk (Special Designations) Order, 1923	41
Milk and Dairies Order, 1926	42
Inspection of Cows and Cowsheds	43
Tuberculosis and the Milk Supply	44
Inspection of Slaughterhouses	47
Imported Meat	48
Montague Street Pig Market	48
Wholesale Fruit, Vegetable and Fish Markets	48
Food Preparation Premises and Shops	49
Inspection of Meat and other foods	50
Fish Friers' Premises	50
Birmingham Corporation Bill	50
Prosecutions	51
Sugar Sweepings	51
Food Kitchens	51

	Page.
Meat and other foods certified as unfit for human consumption	51
Diseases of Animals Acts	52
Anthrax	52
Bovine Tuberculosis Order	52
VI.—PREVALENCE OF, AND CONTROL OVER INFECTIOUS DISEASES	
Infectious Disease Generally	53
Enteric Fever	54
Undulant Fever	54
Glandular Fever	54
Smallpox	54
Vaccination	55
Measles	55
Scarlet Fever	56
Whooping Cough	57
Diphtheria	58
Dysentery	60
Food Poisoning	60
Poliomyelitis	60
Polioencephalitis	60
Encephalitis Lethargica	60
Cerebro Spinal Fever	61
Infectious Diseases Hospitals	62
Disinfection	73
Tuberculosis	74
Work of Tuberculosis Visitors	80
Care Work	81
The Anti-Tuberculosis Centre	82
Sanatoria for Tuberculosis	92
The Light Clinic, Yardley Green Road Sanatorium	96
Venereal Diseases	99
VII.—MATERNITY AND CHILD WELFARE	
Chief Statistics	101
General Comments	101
Births	102
Illegitimate Births	103
Infant and Child Mortality	104
Neo-natal Mortality	107
Infant Mortality and Illegitimacy	108
Still Births	108
Deaths of Children between 1 and 5 years	109
Maternal Mortality in Child Birth	110
Puerperal Sepsis	113
Ophthalmia Neonatorum	114
Pemphigus Neonatorum	114
Maternity and Child Welfare Service	115
Health Visiting	115
Training Course for Health Visitors	115
Child Welfare Centres	115
Toddlers' Educational Classes	119
Medical Inspection for Pre-School Children	120
Health Visitors' Enquiries	120
Ante-Natal Clinics	121
Ultra-violet Light Clinics	122
Remedial Exercise Clinics	122
Dental Treatment	123
Treatment of Ear, Nose, Throat and Eye Conditions	123
The Provision of food for necessitous Mothers and Children	123
Carnegie Infant Welfare Institute	124
The Parents' Guidance Clinic	125
Walker Shield Competition	126
Home Helps	127
City Babies' Hospital	127
Pype Hayes Convalescent Home for Mothers and Babies	129
The Lordswood Nursery	129
Wake Green Road Maternity Home	130
Heathfield Road Maternity Home	135
Care of the Unmarried Mother	137
Infant Life Protection	138
The Foster-Mother Service	139
Supervision of Midwives	140
Nursing Homes	142
Provision of Birth Control Clinics	143
TABLES :—	
I.—Vital Statistics during 1934 and previous years	147
II.—Causes of Death at different age periods in 1934	148
III.—Births and Deaths from different causes in wards in 1934	150
IV.—Death-rates from all causes in wards in 1934 and previous years	153
V.—Deaths under 1 per 1,000 Births in wards in 1934 and previous years	154
VI.—Birth-rates in wards in 1934 and previous years	155
VII.—Cases of Infectious Disease at different age periods in 1934	156
VIII.—Cases of Infectious Disease in wards in 1934	157
IX.—Pulmonary Tuberculosis. Case-rates in wards in 1934 and previous years	158
X.—Meteorology and Mortality in each week, 1934	159

PUBLIC HEALTH DEPARTMENT,
THE COUNCIL HOUSE,
BIRMINGHAM.

TO THE CHAIRMAN AND MEMBERS OF THE PUBLIC HEALTH AND MATERNITY
AND CHILD WELFARE COMMITTEE.

MR. CHAIRMAN, LADIES AND GENTLEMEN,

The year of which the following pages are a record was one of vigorous activity in every branch of preventive and of curative work for which the Public Health Department is responsible.

The health of the City was on the whole maintained at an even level. No grave epidemic of infectious disease affected the health of the population. While scarlet fever was unusually prevalent, it was of a mild, and even in many cases trivial character. Diphtheria was much more frequent than in 1932 and 1933, but was at a lower level of prevalence than in years preceding these. The type of disease was, however, markedly more severe than in recent years, and it would appear that Birmingham was visited with the graver type of this infection which has been prevalent in many other areas. The incidence of the disease affected almost wholly the non-immunised section of the population.

Of the so-called minor infections, which may nevertheless play great havoc among the child population, measles was much less prevalent than in 1933, while whooping cough was unduly prevalent and correspondingly a cause of death among young children. The opening of the new ward-blocks at Little Bromwich Hospital, through which it is hoped to treat in hospital, and thereby to reduce the death-rate and the complication rate in cases of measles and whooping cough, did not take place till after the end of the year under review.

Housing work has absorbed much of the thought and energy of the Staff. Particulars are given in the report of the 33 Clearance Orders and 10 Compulsory Purchase Orders made during 1934. These involved 1,459 houses, while a further 445 individual houses were represented for demolition. The number of houses represented, whether in areas or individually, must necessarily be kept in due relation with the number of houses becoming available for re-housing of the displaced tenants. It will be seen that, even with the difficulties inherent in the provision of a full quota of new houses during the earlier stages of a re-housing programme, the number of representations approximated to the 2,000 which represents one-fifth of the five years' scheme.

The municipal general hospitals have been kept very busy throughout the year. While the pressure on both has been considerable, Selly Oak Hospital has been particularly taxed through the large number of ear, nose and throat cases requiring surgical in-patient treatment.

In respect of your Committee's work for the control of tuberculosis, it is satisfactory to find that both the incidence and the death-rate of pulmonary and of non-pulmonary tuberculosis in 1934 reached the lowest levels hitherto attained, while the number of contacts of tuberculous patients examined and supervised continued to rise.

In relation to maternity and child welfare, a new Child Welfare Centre was built and opened in Monument Road, in place of two existing Centres, the lease of which had come to an end. A new Centre was also opened in Marsh Lane, Erdington, to replace a Centre in rented premises.

A Parents' Guidance Clinic, opened at the Carnegie Institute in January, 1934, under the care of a medical psychologist, to offer advice to parents in the right up-bringing of difficult children, has proved of real value.

During 1934, proposals for the more systematic care and supervision of foster mothers and foster children were approved by the City Council, and were brought into effect early in 1935.

The report includes a copy of a statement prepared by me for your Committee on the subject of Circular 1408 (May 31st, 1934) of the Ministry of Health, relating to the provision of advice on birth control; and I have given a summary of the City Council's directions on the matter, and of the stage reached in the provision of clinics for the purpose at the time of preparation of this report.

The pages of the report will show in detail that in practically every branch of Public Health work expansions and developments have occurred, making calls on the energies and enthusiasm of the staff, to which there has been the fullest and most willing response. It is a pleasure to express appreciation of ungrudging service by all ranks of the staff; and at the same time to record their and my thanks to your Committee for your consistent support and consideration.

I am,

Your obedient servant,

H. P. NEWSHOLME,
Medical Officer of Health.

July, 1935.

CITY OF BIRMINGHAM.

REPORT OF THE MEDICAL OFFICER OF HEALTH For the year 1934.

SUMMARY OF STATISTICS.

Area (in acres), 51,147.

Population (Census, 1931), 1,002,603.

Estimated by Medical Officer, 1934, 1,028,000.

Estimated by Registrar-General, 1934, 1,012,800.

Total number of houses at April 1st, 1934, according to rate books, 256,156.

Rateable value, £6,719,270 (April 1st, 1934).

Sum represented by a penny rate, £24,661.

Extracts from vital statistics of the year 1934:—

Births—Males : 8,090 } Legitimate, 15,107 } Birth Rate, 15.3.
 Females : 7,591 } Illegitimate, 574 }

Stillbirths, 580. Rate per 1,000 total live and stillbirths, 36.

Deaths, 11,347. Crude Death-rate 11.0. Standardised Death-rate 12.1.

Percentage of deaths occurring in public institutions—50 per cent.

Number of women dying in, or in consequence of childbirth—

		Deaths.	Rate per 1,000 live and still births.
From sepsis	...	29	1.78
From other causes	...	31	1.91
		Total 60	3.69

Deaths of Infants under one year of age per 1,000 live births:—

Legitimate, 66. Illegitimate, 106. Total, 68.

Deaths from Measles (all ages), 23

Deaths from Whooping Cough (all ages), 115.

Deaths from Diarrhoea (under two years of age), 137.

1. POPULATION AND MORTALITY STATISTICS.

POPULATION.

The Registrar General estimated the population of Birmingham at 1,012,800 on June 30th, 1934. The local estimate, based on the natural increase due to excess of births over deaths, with an allowance for migration, was 1,028,000.

BIRTHS.

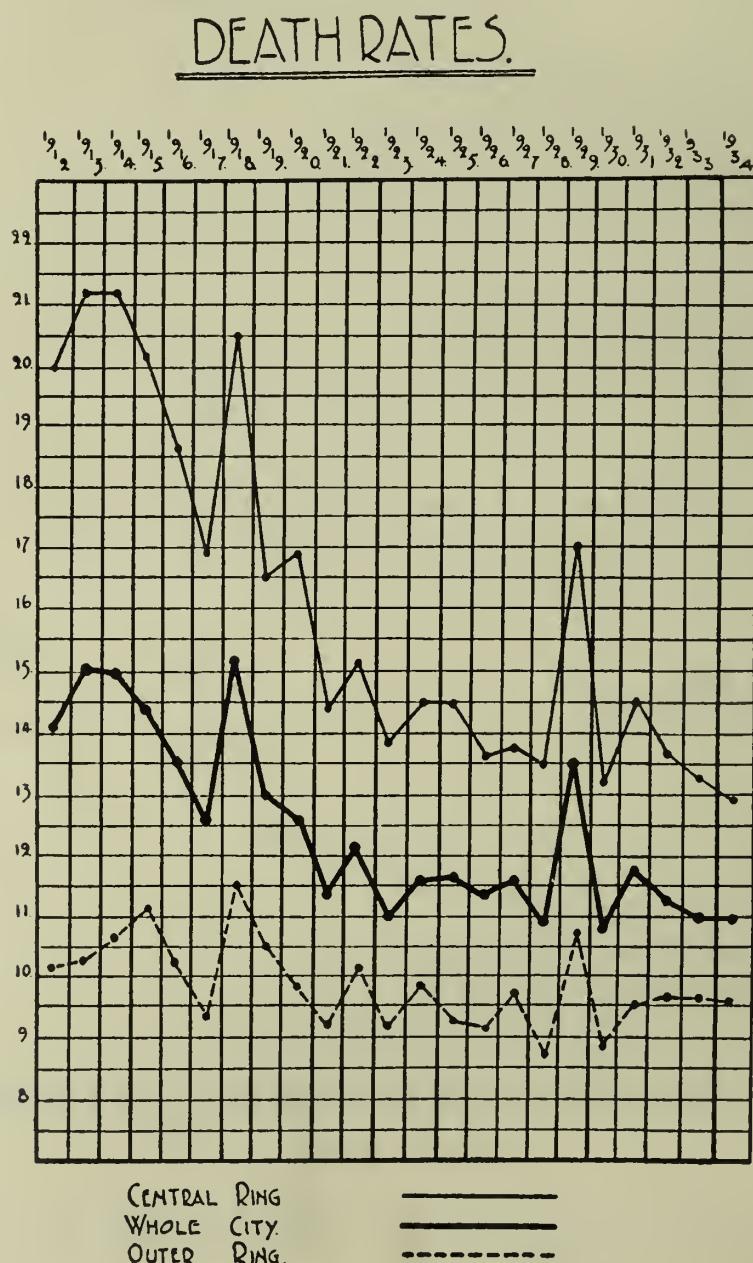
(See page 102).

DEATHS.

The deaths belonging to Birmingham numbered 11,347 as compared with 11,295 in 1933 and 11,508 in 1932. Of these deaths 5,921 were of males and 5,426 of females.

The death-rate for 1934 was 11.0. This was identical with that in 1933, and was almost a record figure, the lowest rate being 10.8 in 1930, and the average for the previous ten years being 11.5.

The fluctuations in the death-rate during the past 23 years are shown on the diagram below, which also shows the rates in the Central and Outer groups of wards.



The progress in reduction of the death-rate in England and Wales and in Birmingham during the past 60 years can be seen from the figures below:—

DEATH-RATES IN BIRMINGHAM AND ENGLAND AND WALES.

		Birmingham		England and Wales
1871-1875 (Old City)	...	25.2	...	22.0
1876-1880	"	22.8	...	20.8
1881-1885	"	20.7	...	19.4
1886-1890	"	20.2	...	18.9
1891-1895	"	20.3	...	18.7
1896-1900	"	20.5	...	17.7
1901-1905 (Present Area)	...	16.5	...	16.0
1906-1910	"	15.0	...	14.7
1911-1915	"	14.6	...	14.3
1916-1920	"	13.4	...	14.4
1921-1925	"	11.5	...	12.2
1926-1930	"	11.6	...	12.1
1925	"	11.7	...	12.2
1926	"	11.3	...	11.6
1927	"	11.6	...	12.3
1928	"	10.9	...	11.7
1929	"	13.5	...	13.4
1930	"	10.8	...	11.4
1931	"	11.7	...	12.3
1932	"	11.3	...	12.0
1933	"	11.0	...	12.3
1934	"	11.0	...	11.8

Up to 1915 the mortality in Birmingham was above that of England and Wales. During the 19 years since that date, with one exception, it has been below the rate for the country as a whole.

The Birmingham death-rate compares favourably with that of other large towns in this country:

COMPARATIVE DEATH RATES IN ELEVEN LARGEST TOWNS.

					12.2 per 1,000
London	...	...	...	...	13.7
Glasgow	...	...	...	...	11.0
Birmingham	...	...	...	...	13.1
Liverpool	...	...	...	...	12.2
Manchester	...	...	...	...	11.3
Sheffield	...	...	...	...	12.9
Leeds	...	...	...	...	12.8
Edinburgh	...	...	...	...	10.9
Bristol	...	...	...	...	13.5
Bradford	...	...	...	...	11.4
Hull	...	...	...	...

MORTALITY BY AGE AND SEX.

The deaths at different age periods were as follows:—

		Males.	Females.	Persons.
Under 1 year	...	616	445	1,061
1 and under 2	...	82	89	171
2 and under 5	...	94	90	184
5 and under 15	...	151	139	290
15 and under 25	...	206	202	408
25 and under 45	...	651	560	1,211
45 and under 65	...	1,771	1,374	3,145
65 and under 75	...	1,354	1,183	2,537
75 and upwards	...	996	1,344	2,340

The deaths at ages over 65 years are largely to be regarded as in the natural order of things and to that extent as inevitable. They number 4,877 out of a total of 11,347.

The deaths at ages below 65 years contain large groups capable of marked reduction under healthy conditions of life and granted the whole-hearted co-operation of the public in living the healthy life. In 1934 such largely preventable deaths numbered 6,470, or 57 per cent. of the total.

Included among these are 1,061 deaths under 1 year of age, and a further 355 deaths between 1 and 5 years. The causes of mortality in these groups are set out in detail in the section of this report on Maternity and Child Welfare (Section VII).

Among school children (5 to 15 years), the largest individual cause of death was diphtheria with 46 deaths, while accident (41), rheumatic fever (35), nervous diseases (31), and tuberculosis (22), were responsible for a not inconsiderable mortality at this age.

Among young people between 15 and 25 years, there were 408 deaths (8 per week on an average) of which 165 were due to tuberculosis.

In early adult life (25 to 45 years) no less than 1,211 deaths occurred. At this age period also tuberculosis heads the list of diseases with 301 deaths.

In later adult life (45 to 65 years), the largest number of deaths was caused by heart and circulatory diseases (780), cancer being second (677 deaths), respiratory diseases third (349), and tuberculosis fourth with 250.

Fuller details as to the causes of death at different age periods and in the two sexes are given in Table II at the end of this report.

INFANT MORTALITY.

(See page 104).

DEATH-RATES IN WARDS.

In 1934 the death-rates in the different wards were as set out below, in comparison with the corresponding previous years. As in previous years there continue to be marked differences in the death-rates in the various wards of the City:—

DEATH-RATES IN WARDS.

		1934.	Death-rate.	
			1933.	1932.
Central Wards	St. Paul's	12.1	12.7	13.2
	St. Mary's	14.0	13.7	15.8
	Duddeston and Nечells	12.5	12.7	14.2
	St. Bartholomew's	12.2	12.6	13.7
	St. Martin's and Deritend	14.2	14.2	13.7
	Market Hall	13.1	14.0	12.6
Middle Ring	Ladywood	12.0	13.1	12.1
	Lozells	13.4	13.2	13.1
	Aston	12.3	12.3	13.4
	Washwood Heath	9.5	9.6	10.5
	Saltley	8.9	9.1	8.7
	Small Heath	10.8	12.0	11.4
	Sparkbrook	13.9	12.8	12.1
	Balsall Heath	14.2	11.7	13.2
	Edgbaston	11.6	11.0	11.7
	Rotton Park	12.7	10.0	11.5
Outer Ring	All Saints'	12.5	12.1	11.4
	Soho	11.5	13.0	13.0
	Sandwell	11.6	10.8	11.1
	Handsworth	12.4	12.9	11.1
	Perry Barr	5.9	5.9	6.7
	Erdington North	8.4	8.4	8.7
	Erdington South	8.0	12.1	9.2
	Yardley	8.5	9.3	9.0
	Acocks Green	8.7	8.8	8.5
	Sparkhill	9.4	9.1	10.1
	Moseley and King's Heath	10.3	10.3	10.7
	Selly Oak	10.7	9.2	10.8
	King's Norton	10.8	10.0	10.1
	Northfield	8.4	8.3	7.2
	Harborne	9.7	8.4	10.4

It should be noted that the old wards have been adhered to for the months of November and December to complete the figures for the year.

The mean death-rates in the three groups of wards have been as follows:—

		Central Wards	Middle Ring	Outer Ring
1929	...	17.0	13.6	10.8
1930	...	13.3	10.8	8.9
1931	...	14.5	12.3	9.5
1932	...	13.6	11.7	9.8
1933	...	13.3	11.4	9.7
1934	...	12.9	12.0	9.6

The diagram on page 8 shows the death-rate during the past 23 years in the City as a whole contrasted with that of the Central Wards and of the Outer Ring. It will be noted that the mortality in the Central Wards is much nearer to that of the whole City than it was 23 years ago. Nevertheless the difference between the Central and the Outer Wards is still serious. Last year there were 2,660 deaths in the Central Wards. If the death-rate in them had been as low as it was in the Outer Ring 680 of these deaths would have been avoided.

During the year the movement of the population from the Central areas to the suburbs continued. The population of the Central Wards is estimated to have been 220,900 in 1930, 216,500 in 1931, 212,600 in 1932, 208,000 in 1933, and 206,300 in 1934.

In the next table the mortality from some of the more prominent causes of death is shown for the three groups of wards.

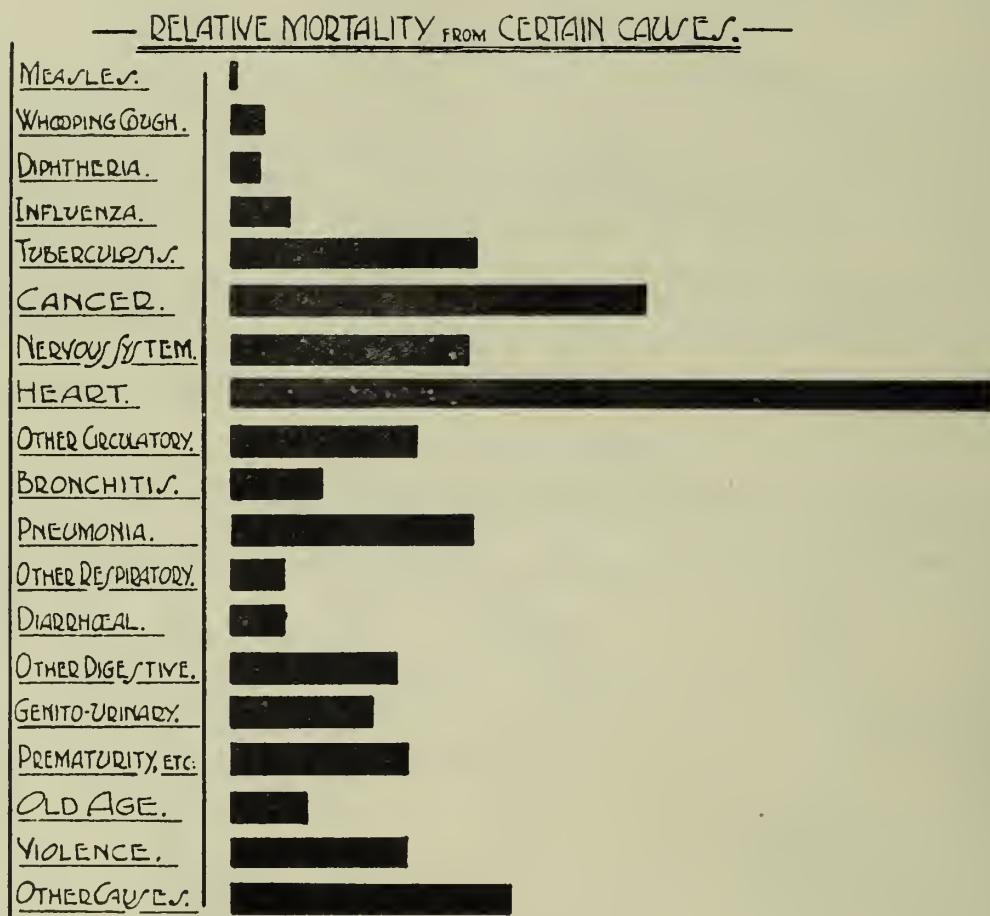
DEATH-RATES IN GROUPS OF WARDS, 1934.

	Central Wards	Middle Ring	Outer Ring	City
Measles .... .... .... ....	.05	.02	.01	.02
Whooping Cough .... .... ....	.17	.12	.08	.11
Diphtheria .... .... ....	.10	.06	.09	.08
Influenza .... .... ....	.20	.19	.16	.18
Tuberculosis of Respiratory System ....	.99	.72	.58	.71
Other forms of Tuberculosis ....	.10	.07	.08	.08
Cancer, Malignant Disease	1.46	1.65	1.24	1.43
Diseases of Nervous System and Sense Organs .... .... .... ....	.91	.84	.61	.76
Diseases of Heart	3.06	2.72	1.90	2.46
Other Diseases of Circulatory System ....	.51	.62	.58	.58
Bronchitis .... .... ....	.37	.30	.24	.29
Pneumonia (all forms)	1.11	.90	.61	.82
Other Diseases of Respiratory System ....	.19	.18	.13	.16
Diarrhoea and Enteritis .... ....	.25	.16	.13	.16
Other Diseases of Digestive System ....	.55	.51	.49	.51
Non-Venereal Disease of Genito-urinary System .... .... .... ....	.43	.53	.37	.44
Premature Birth and Diseases of Early Infancy .... .... .... ....	.65	.49	.53	.54
Old Age .... .... .... ....	.22	.23	.23	.23
Violence (all forms) .... .... ....	.59	.60	.47	.54
Other Causes .... .... .... ....	.99	.96	.84	.92

In almost every instance the mortality is higher in the Central Wards than in the Outer Ring. This excessive mortality is very noticeable in the case of pneumonia, tuberculosis and heart diseases. In the case of pneumonia, the deaths last year in the Central Wards numbered 230. If the mortality had been no higher than in the Outer Ring they would have numbered 126, a saving of 104 lives.

PRINCIPAL CAUSES OF DEATH.

Particulars of the deaths from individual causes at different age periods and in the two sexes are set out in Table II at the end of this Report. The relative mortality attributable last year to some of the more important of these causes is shown in the diagram below.



The Statistics relating to infectious diseases (including tuberculosis) are dealt with in detail in Section VI of this Report, and those relating to diarrhoea, prematurity and other infantile complaints in Section VII.

CANCER.

The deaths from cancer numbered 1,469 as compared with 1,460 in 1933. The part of the body primarily affected was as follows:—

						1934	1933
Lip, tongue, palate, jaw, and pharynx	...	...	...	...	...	87	76
Oesophagus, stomach, liver, pancreas	...	...	...	...	...	414	439
Peritoneum, intestine, rectum	...	...	...	...	...	361	346
Female organs of reproduction	...	...	...	...	...	134	124
Breast	...	...	...	...	...	174	147
Skin	...	...	...	...	...	7	14
Other parts	...	...	...	...	...	292	314

The death-rate in Birmingham and in England and Wales is shown in the table below:—

DEATH-RATE PER 1,000 FROM CANCER.

				Birmingham.	England and Wales.
1925	...	...	...	1.27	1.34
1926	...	...	...	1.26	1.36
1927	...	...	...	1.36	1.38
1928	...	...	...	1.35	1.42
1929	...	...	...	1.34	1.44
1930	...	...	...	1.43	1.45
1931	...	...	...	1.46	1.48
1932	...	...	...	1.45	1.51
1933	...	...	...	1.43	1.53
1934	...	...	...	1.43	—

CANCER DEATH-RATES IN WARDS.

	Ward.	Death-rate 1934.
Central Wards	St. Paul's	1.19
	St. Mary's	1.61
	Duddeston and Nechells	1.44
	St. Bartholomew's	1.26
	St. Martin's and Deritend	1.61
	Market Hall	1.58
	Ladywood	1.56
Middle Ring	Lozells	1.77
	Aston	1.90
	Washwood Heath	1.18
	Saltley	1.28
	Small Heath	1.66
	Sparkbrook	1.96
	Balsall Heath	1.86
	Edgbaston	1.81
	Rotton Park	1.53
	All Saints	1.73
	Soho	1.77
	Sandwell	1.97
	Handsworth	1.73
	Perry Barr	0.38
Outer Ring	Erdington North	1.17
	Erdington South	1.02
	Yardley	1.10
	Acocks Green	1.19
	Sparkhill	1.10
	Moseley and King's Heath	1.38
	Selly Oak	1.35
	King's Norton	1.45
	Northfield	0.87
	Harborne	1.50

In some of the newer parts of the town, such as Perry Barr and Northfield, the favourable death-rate in respect of cancer is no doubt attributable to the small number of people there who are at an age when they are likely to suffer from the disease. The number of deaths in individual wards is, however, so low as to make comparison between wards unjustifiable.

The Public Health Committee continue to pay an annual contribution of £250 to the Birmingham Branch of the British Empire Cancer Campaign in support of their work on cancer research.

DISEASES OF THE HEART AND BLOOD VESSELS.

There were 3,126 deaths from these diseases as compared with 3,008 in 1933. The death rates during the past ten years have been as follows:—

	Birmingham.	England and Wales.
1925	2.12	2.19
1926	2.12	2.21
1927	2.28	2.52
1928	2.41	2.69
1929	2.76	3.06
1930	2.57	2.83
1931	2.90	3.14
1932	2.78	3.18
1933	2.94	3.30
1934	3.04	—

The death-rates in Birmingham are somewhat below those in England and Wales.

The age distribution of the deaths in 1934 was as follows:—

Under 1 year	...	...	...	1	0.0%
1 and under 2	...	...	...	3	0.1%
2	5	...	...	3	0.1%
5	15	...	...	10	0.3%
15	25	...	...	31	1.0%
25	45	...	...	146	4.7%
45	65	...	...	780	25.0%
65	75	...	...	1,046	33.5%
75 and over	...	...	...	1,106	35.3%

DEATH-RATES FROM DISEASES OF HEART AND BLOOD VESSELS.

	Ward.	Death-rate. 1934.	
Central Wards	St. Paul's	3.63	Average 3.61
	St. Mary's	4.25	
	Duddeston and Nechells	3.02	
	St. Bartholomew's	3.37	
	St. Martin's and Deritend	3.96	
	Market Hall	4.03	
Middle Ring	Ladywood	3.01	Average 3.39
	Lozells	4.52	
	Aston	2.82	
	Washwood Heath	2.45	
	Saltley	2.44	
	Small Heath	3.10	
	Sparkbrook	3.85	
	Balsall Heath	4.57	
	Edgbaston	3.30	
	Rotton Park	3.37	
	All Saints	3.49	
	Soho	3.47	
Outer Ring	Sandwell	2.98	Average 2.57
	Handsworth	3.80	
	Perry Barr	0.85	
	Erdington North	2.13	
	Erdington South	2.24	
	Yardley	2.37	
	Acocks Green	2.06	
	Sparkhill	2.52	
	Moseley and King's Heath	2.99	
	Selly Oak	3.58	
	King's Norton	2.99	
	Northfield	1.63	
	Harborne	2.35	

The mortality in the Central Wards was again considerably above that in the Middle or Outer Rings.

BRONCHITIS, PNEUMONIA AND OTHER RESPIRATORY DISEASES.

The mortality from these diseases varies greatly from year to year, being influenced markedly by weather conditions and by the prevalence of such diseases as influenza, measles or whooping-cough. In 1934 the mortality was comparatively low.

The mortality in recent years has been as follows:—

	Birmingham.	England and Wales.
1925	...	1.97
1926	...	2.00
1927	...	1.88
1928	...	1.93
1929	...	1.56
1930	...	2.26
1931	...	1.32
1932	...	1.61
1933	...	1.47
1934	...	1.39
	1.26	—

Unlike heart disease, respiratory diseases generally cause a somewhat higher mortality in Birmingham than in England and Wales as a whole. A considerable part of the mortality occurs in early life, the deaths last year being distributed as follows:—

Under 1 year	...	...	168	or	12.9%
1 and under 2 years	...	...	54	„	4.2%
2 „ 5 „	...	...	34	„	2.6%
5 „ 15 „	...	...	30	„	2.3%
15 „ 25 „	...	...	31	„	2.4%
25 „ 45 „	...	...	161	„	12.4%
45 „ 65 „	...	...	349	„	26.9%
65 „ 75 „	...	...	233	„	17.9%
75 and over	...	...	238	„	18.4%
All Ages	...	...	1,298	—	—

DEATH-RATE PER 1,000 FROM RESPIRATORY DISEASES.

	Ward.	Death-rate 1934.
Central Wards	St. Paul's	1.48
	St. Mary's	1.44
	Duddeston and Nechells	1.62
	St. Bartholomew's	2.14
	St. Martin's and Deritend	1.95
	Market Hall	1.15
	Ladywood	1.48
		Average 1.61
Middle Ring	Lozells	1.31
	Aston	1.90
	Washwood Heath	1.23
	Saltley	1.36
	Small Heath	1.15
	Sparkbrook	1.22
	Balsall Heath	1.65
	Edgbaston	1.17
	Rotton Park	1.53
		Average 1.61
		1.24

Outer Ring	Ward.	Death-rate				
		1934.				
	Soho	...	...	...	...	0.97
	Sandwell	...	...	...	...	1.11
	Handsworth	...	...	...	...	1.07
	Perry Barr	...	...	...	...	0.73
	Erdington North	...	...	...	...	0.78
	Erdington South	...	...	...	...	0.88
	Yardley	...	...	...	...	0.61
	Acocks Green	...	...	...	...	1.14
	Sparkhill	...	...	...	...	1.08
	Moseley and King's Heath				...	0.85
	Selly Oak	...	...	...	...	1.18
	King's Norton	...	...	...	...	1.32
	Northfield	...	...	...	...	1.02
	Harborne	...	...	...	...	0.98
						Average 0.98

It will be seen that respiratory diseases are much more common as a cause of death in the Central Wards than elsewhere.

The highest death-rate was 2.14 per 1,000 in St. Bartholomew's ward; the lowest, 0.61 in Yardley.

II. GENERAL PROVISION OF HEALTH SERVICES.

PUBLIC HEALTH OFFICERS.

General.

Medical Officer of Health	...	...	...	...	...	1
Secretary	...	...	...	...	...	1
Medical Staff, whole-time, for general purposes	...	...	...	...	...	2
General Clerical and Financial Staff	...	...	...	...	...	39

Sanitary Department.

Staff of Sanitary Inspectors	...	...	...	...	...	64
Disinfectors, etc.	...	...	...	...	...	10
Cleansing Staff	...	...	...	...	...	6
Clerical Staff	...	...	...	...	...	8

Maternity and Child Welfare Department.

Medical Staff (whole-time)	...	...	...	...	...	15
Medical Staff (part-time)	...	...	...	...	...	20
Health Visitors	...	...	...	...	...	108
Instructors	...	...	...	...	...	5
Caretakers and Cleaners	...	...	...	...	...	34
Porters and Gardeners	...	...	...	...	...	14
Nursing Staff (Hospitals & Homes)	...	...	...	...	...	102
Domestic and Laundry Staff	...	...	...	...	...	48
Clerical Staff	...	...	...	...	...	9
Others	...	...	...	...	...	10

Tuberculosis Department.

Medical Staff	...	...	...	...	...	10
Nursing Staff (Sanatoria)	...	...	...	...	...	110
Domestic Staff	...	...	...	...	...	77
Porters, Gardeners, Stokers, Drivers	...	...	...	...	...	51
Tuberculosis Visitors and Dispensary Nurses	...	...	...	...	...	15
Clerical Staff	...	...	...	...	...	13
Others	...	...	...	...	...	18

Infectious Diseases Hospital

Medical Staff	...	...	...	...	...	6
Nursing Staff	...	...	...	...	...	152
Domestic Staff	...	...	...	...	...	90
Porters, Gardeners, Stokers, Drivers	...	...	...	...	...	52
Others	...	...	...	...	...	13

General Hospitals and Convalescent Homes.

Medical Staff	...	...	...	...	...	36
Nursing Staff	...	...	...	...	...	786
Domestic Staff	...	...	...	...	...	364
Porters, Gardeners, Stokers, Drivers	...	...	...	...	...	151
Clerical Staff	...	...	...	...	...	46
Workmen	...	...	...	...	...	45
Others	...	...	...	...	...	40

Works Department.

Manager, Workmen and Clerks	65
-----------------------------	-----	-----	-----	-----	-----	----

Bacteriological Department.

Medical Staff	...	...	...	...	...	2
Assistants and Staff	...	...	...	...	...	14

Analytical Department.

City Analyst and Deputy	...	...	...	...	...	2
Assistants and Staff	...	...	...	...	...	4

Public Vaccination.

Public Vaccinators (part-time)	...	...	...	...	...	20
Vaccination Officers (whole-time)	...	...	...	...	...	6

Inspection of Cowsheds and Dairies and of meat and other foods is carried out by the Veterinary Department on behalf of the Public Health Committee.

CONSULTATION WITH VOLUNTARY HOSPITALS.

There has not been occasion during the year for formal consultation with the representatives of the Voluntary Hospitals under the terms of the local Government Act, 1929. On a number of occasions the appropriate officers of Voluntary Hospitals have been consulted on matters of mutual interest or concern.

POOR LAW MEDICAL OUT-RELIEF.

Report by DR. ELLIS.

The District Medical Services have remained unchanged during the year.

The temporary arrangements whereby three part-time District Officers divide among them the work previously undertaken by one whole-time Officer is still being continued, no decision yet having been reached as to the final method of dealing with this service.

There has been a slight increase in the number of patients attending the Dispensaries, and in the number of Home visits. These increases, which are not considerable, may have been related to the number of unemployed who have, owing to their long continued unemployment, fallen out of medical benefit.

It is hoped soon to be able to re-adjust the districts, the necessity for the revision of which has become accentuated of recent years owing to the free movement of the population of the City from one area to another.

Periodical meetings of the District Medical Officers with the Chief Medical Officer of the Public Assistance Department have been arranged, in conjunction with periodical visitations of the Dispensaries, for the fuller co-ordination of the work of the various District Medical Officers with each other and with the general medical work of the City.

INSTITUTIONAL PROVISION FOR THE CARE OF MENTAL DEFECTIVES.

During the year the City Council erected two new villas at Coleshill Hall for 120 patients.

NURSING IN THE HOME.

The following cases were nursed during the year by the District Nursing Societies on behalf of the Public Health Department:—

Measles	...	...	...	...	...	...	25
Measles with Pneumonia	...	...	...	...	...	...	16
Whooping Cough	...	...	...	...	...	...	24
Whooping Cough with Pneumonia	...	...	...	...	...	...	21
Whooping Cough with Measles	...	...	...	...	...	...	1
Pneumonia	...	...	...	...	...	...	802
Puerperal Pyrexia	...	...	...	...	...	...	7
							896

The amount paid to the Societies on account of this work was £896.

Cases of Ophthalmia Neonatorum are visited in their homes, as far as necessary, by nurses from the Eye Hospital, a grant of £200 per annum being paid to the hospital in respect of this service.

Other forms of ophthalmia are also visited in their homes by an extern nurse from the Eye Hospital, the Public Health Committee contributing at the rate of £100 a year with £10 for travelling expenses, in view of the bearing of this work on the prevention of blindness. The work has proved so successful that (in June, 1935) the Eye Hospital have decided to appoint a second extern nurse for this purpose, and the Public Health Committee have agreed to pay a like contribution towards her salary and expenses.

MIDWIVES.

(See page 140).

BACTERIOLOGICAL LABORATORY.

The work done at the City Bacteriological Laboratory is set out in the statement below:—

Diphtheria Swabs—						
(a) For Practitioners	...	...	...	...	...	6,244
(b) For Fever Hospitals	...	...	...	...	...	7,059
(c) For virulence test	...	...	...	...	...	2,215
Faeces						
...	...	...	...	...	...	1,082
Milk	...	...	...	...	...	588
Milk for Tuberculosis	...	...	...	...	...	1,874
Shell Fish	...	...	...	...	...	156
Sputum for Tuberculosis	...	...	...	...	...	2,531
Vaccines	...	...	...	...	...	9
Venereal Diseases—						
Blood for Wassermann Reaction	...	...	...	...	...	13,483
Cerebro-Spinal Fluid—						
(a) For Wassermann Reaction	...	...	...	...	...	571
(b) For Cell Count	...	...	...	...	...	161
Films for Gonorrhœa	...	...	...	...	...	10,213
Gonococcal Fixation Test	...	...	...	...	...	3,337
Serum for Spirochætes	...	...	...	...	...	35
Urine Examinations—						
(a) Microscopic	...	...	...	...	...	211
(b) Chemical	...	...	...	...	...	2,556
Cultures prepared	...	...	...	...	...	9,170
Vaccines prepared	...	...	...	...	...	395
Van den Bergh's Test	...	...	...	...	...	3,653
Water samples	...	...	...	...	...	637
Widal's Reaction	...	...	...	...	...	1,813
Sigma reaction	...	...	...	...	...	103
Miscellaneous	...	...	...	...	...	4,696
						Total 72,792

ANALYTICAL LABORATORY.

The following statement shows the samples analysed:—

		1933.	1934.
Food and drug samples	...	5,291	5,383
Soot gauge samples	...	23	24
Fertilisers and feeding stuffs	...	23	23
Miscellaneous samples	...	963	985
		6,300	6,415

Food and Drugs Acts—

Samples adulterated with preservatives only	...	...	4	2
Samples adulterated in other ways	...	...	261	264
Unmarked or improperly marked margarine	...	—	—	2
False labels	...	...	31	13
Number of vendors of incorrect samples	...	...	178	175
Number of prosecutions	...	...	8	15
Number of fines	...	...	7	15
Amount of fines and costs	...	...	£21/9/0	£35/5/0
Number of cautions	...	...	148	150

Particulars relating to this work are given in the Report of the City Analyst.

NEW LEGISLATION IN FORCE.

The following Act of Parliament came into force during the year, and was delegated by the City Council to the Public Health and Maternity and Child Welfare Committee:—

Shops' Act, 1934 (except as in so far as the Act relates to street trading).

HOSPITALS.

No material alteration took place during the year in the amount and character of the hospital accommodation available.

The part which the hospitals—voluntary and municipal—play in the treatment of sickness may be inferred in some degree from the fact that last year 5,688 deaths out of a total 11,347 occurred in hospitals and kindred institutions. Details of these deaths are as follows:—

Dudley Road Hospital	...	...	...	...	...	...	1,062
Selly Oak Hospital	...	...	...	...	...	...	668
Selly Oak Infirmary	...	...	...	...	...	...	622
General Hospital	...	...	...	...	...	...	407
Queen's Hospital	...	...	...	...	...	...	238
Children's Hospital	...	...	...	...	...	...	172
Women's Hospital and Taylor Home	...	...	...	...	...	...	65
Maternity Hospital	...	...	...	...	...	...	46
City Fever Hospitals, Babies Hospital and Maternity Homes							285
City Mental Hospitals	...	...	...	...	...	...	169
City Sanatoria	...	...	...	...	...	...	273
Western House	...	...	...	...	...	...	657
Erdington House	...	...	...	...	...	...	476
Private Hospitals	...	...	...	...	...	...	202
Institutions outside the City	...	...	...	...	...	...	346

The extent to which hospitals are used for particular diseases can in some degree be estimated from the statement below:—

	No. of Deaths.	Percentage of Total Deaths from this cause
Measles	15	65%
Whooping Cough	62	54%
Diphtheria	74	88%
Influenza	22	12%
Tuberculosis of Respiratory System	361	49%
Other forms of Tuberculosis	67	82%
Cancer	630	43%
Diseases of Nervous System, etc.,	414	53%
Diseases of Heart and Circulatory System	1,310	42%
Bronchitis	54	18%
Pneumonia	518	62%
Other Respiratory Diseases	85	52%
Diseases of Digestive System	500	72%
Genito-urinary System	243	53%
Premature Birth, etc.	342	61%
Old Age	75	31%
Violence	347	63%
Other causes	569	60%
	<hr style="width: 20%; margin-left: 0; border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>	<hr style="width: 20%; margin-left: 0; border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>
	Total 5,688	50%
	<hr style="width: 20%; margin-left: 0; border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>	<hr style="width: 20%; margin-left: 0; border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>

CO-OPERATION WITH VOLUNTARY HOSPITALS.

There is a large degree of co-operation between the Public Health Department and the Voluntary Hospitals, and grants are paid by the Public Health and Maternity and Child Welfare Committee to certain hospitals in respect of the activities named below:—

(1) Under the Venereal Diseases Scheme patients are treated at special clinics at the General Hospital and the Children's Hospital.

(2) Cases of Bone Tuberculosis are treated at the Royal Cripples' Hospital and to a smaller extent at a number of other institutions.

(3) Puerperal Fever cases are admitted to the Women's Hospital and difficult cases of confinement to the Maternity Hospital.

(4) For Out-patient Orthopaedic cases under 5 years of age the Royal Cripples' Hospital receives a *per capita* fee.

(5) Cases of tonsils and adenoids and of eye and ear defects discovered at the Maternity and Child Welfare Centres are referred to the Children's Hospital for operation or treatment.

(6) Cases of ophthalmia neonatorum are sent to the Eye Hospital, for out-patient or in-patient treatment as may be appropriate, while home visiting of cases is carried out by nurses on the Hospital staff.

CITY GENERAL HOSPITALS.

The statistics relating to the work of Dudley Road and Selly Oak Hospital and Selly Oak Infirmary are given below:—

(a) IN-PATIENTS.

	Dudley Road	Selly Oak Hospital	Selly Oak Infirmary
Total number of admissions (including infants born in hospital)	14,479	9,635	2,551
Number of women confined in hospital	1,196	687	—
Number of live births	1,156	659	—
Number of stillbirths	56	39	—
Number of deaths among the newly born (under 4 weeks)	70	35	—
Number of maternal deaths (confined in hospital)	10	6	—
Total number of deaths	1,224	667	656
Total number of discharges (including infants born in hospital)	13,255	8,972	1,866

(b) OUT-PATIENTS.

Number of persons seen in out-patient department	34,460	11,067	Run in conjunction with Selly Oak Hospital
Total number of attendances	144,199	67,261	
Number of women seen at ante-natal clinic	1,089	654	
Total attendances	2,697	2,127	

(c) CLASSIFICATION OF IN-PATIENTS DISCHARGED OR DIED.

			Dudley Road	Selly Oak Hospital	Selly Oak Infirmary
(a)	Acute infectious diseases	....	342	36	18
(b)	Influenza	....	97	18	0
(c)	Tuberculosis :				
	Pulmonary	....	112	48	9
	Non-pulmonary	....	70	29	10
(d)	Malignant disease	....	422	161	154
(e)	Rheumatism :				
	(1) Acute rheumatism (rheumatic fever), together with sub-acute rheumatism and chorea	....	551	217	21
	(2) Non-articular manifestations of so-called "rheumatism" (muscular rheumatism, fibrositis, lumbago, and sciatica)	....	56	19	4
	(3) Chronic arthritis	....	34	70	58
(f)	Venereal disease	....	41	8	3
(g)	Puerperal pyrexia	....	16	11	—
(h)	Puerperal fever	....	31	3	—
(i)	Other diseases and accidents connected with child-bearing	861	353	—	—
(j)	Mental diseases	....	51	3	5
(k)	Senile decay	....	3	16	78
(l)	Violence	....	1,805	1,135	109

In respect of cases not included above :—

(m)	Diseases of the nervous system and sense organs	....	278	270	274
(n)	„ „ respiratory system	....	1,833	793	548
(o)	„ „ circulatory „	....	560	424	314
(p)	„ „ digestive „	....	2,993	2,439	332
(q)	„ „ genito-urinary	....	1,011	799	68
(r)	„ „ skin	....	488	435	121
(s)	Other diseases	....	489	1,046	262
(t)	Maternity cases (mothers and babies)	....	2,335	1,271	66
(u)	Any persons not falling under above headings	....	—	35	68

DUDLEY ROAD HOSPITAL.

Report by the Medical Superintendent, DR. F. W. ELLIS.

The statistics for the year show an increase of over 900 admissions on the preceding year. Within the first week of the year the number of occupied beds rose to 866—the normal number of equipped beds being 886—and by the third week the number of occupied beds had passed the 890 level. A high number was maintained almost continuously during the first five months of the year, and by the end of January an increase over the normal equipped beds of 70 was reported, and there was little opportunity of reducing these extra beds till the end of May, the highest number of occupied beds being 900, in the middle of April.

The volume of work made an immediate increase in the Senior Staff (which had already been budgetted for) imperative, and A. C. R. Walton, M.D., M.R.C.P., was appointed as temporary Physician, holding the office during the months from January to May inclusive.

A.10 Ward, for a short time used as a Sewing Room, has again been brought into requisition as a Ward after renovation, a small balcony being added and the whole re-floored, ward and kitchen sterilisers provided, the sanitary towers reconstructed, and a central collecting station for soiled linen, etc., instituted.

A similar reconstruction was carried out in B.8, which ward had for many years been used as a Chapel, and also in C.10, which was used as a Dormitory during the reconstruction of the Maids' Home.

The addition of B.8 (the former Chapel), to the Hospital for ward purposes, together with the return of A.10 and C.10 to their proper use, enables three wards to be set aside as a Maternity Unit, while the new block is being built, without largely diminishing the number of beds available at the Hospital, though it prohibits during this time the much needed addition to surgical beds. The remaining two wards it is proposed to retain for cleaning purposes, the need for some such provision being acutely felt during the last few years. It is probable, however, that at times they will have to be used for medical work.

Little Bromwich Fever Hospital has again been able to help by the admission of infectious cases. Nevertheless, there were many infectious cases admitted, there being 131 Whooping Cough, 72 Measles, and 16 Diphtheria, as well as cases of Scarlet Fever, Mumps, German Measles, and the difficulty of preventing the spread of infection in crowded wards has given rise to some anxiety at times, and has emphasised the need for increased and improved quarantine accommodation. The plans for this building have already been made.

Not only has the past year shown an increase in admissions, but individual departments of the Hospital also show comparable rises, thus in the surgical division the number of abdominal sections was 1,637 in 1934, compared with 1,496 in 1933.

The number of radiographs which in 1933 was 15,889, rose to 17,405, there being 8,287 individual cases as against 7,417 in 1933. The number of screenings also rose comparably.

Deep Therapy.

The great change in the Deep Therapy has been the change of methods. The average irradiations per treatment is very definitely increased, and in December of this year were 8.07 irradiations per treatment compared with 3.52 per treatment in December, 1933. This has, of course, very materially increased the amount of work which the department is called upon to perform, even in the absence of numerical increase in the cases.

SELLY OAK HOSPITAL.

Report of the Medical Superintendent, MR. R. P. STANLEY KELMAN, F.R.C.S.

With the exception of the Maternity Department, the Hospital has worked continually throughout the year at full pressure, so that it has been impossible to release any ward accommodation for the normal redecorations.

The total annual admissions were 9,635, and the average duration of stay, 19.35 days. The only side of the Hospital which eased at all during the summer months was the medical side, but not to any marked extent.

Another feature of the year's working has been the increase in the total number of cases on the list waiting for admission. This emphasises the fact that, to deal with any more work, extensions will be necessary. The steady growth of the Ear, Nose and Throat Department has been in large part responsible for the overcrowding which has occurred. Urgent ear, nose and throat cases have had to be spread all over the Hospital, wherever there has been a suitable empty bed. As a result, there has been an unusual amount of ward infection. There have been no unusual epidemics during the year, and apart from cases of acute mastoid disease, there has been no special increase in any particular condition causing admission.

The following figures show briefly the work of some of the speial departments :—

Pathological Department.

Examinations	....	....	....	....	11,192
Autopsies	....	....	....	....	460

Biochemical Department.

Examinations	4,472
--------------	------	------	------	------	-------

Radiological Department.

Cases screened	....	....	....	....	1,302
Cases radiographed	....	....	....	....	14,018

Massage and Electro Therapeutic Department.

Cases	4,786
-------	------	------	------	------	-------

Dental Department.

Attendances	1,429
-------------	------	------	------	------	-------

The classification of the wards remainus as follows, but during peak periods this has not been strietly adhered to :—

General Medieal Wards.
General Surgeal Wards.
General Children's Wards.
Male Urological Ward.
Fracture Wards.
Gynaecological Ward.
Ear, Nose and Throat Wards.
Maternity Department.
Staff Sick Bay.

SELLY OAK INFIRMARY.

Report of the Medical Superintendent, MR. R. P. STANLEY KELMAN, F.R.C.S.

The Infirmary has handled a reecord number of eases for the year, as the following figures indicate :—

Total admissions	....	....	....	....	....	2,551
Average daily occupied beds	....	....	....	....	....	647
Highest number of occupied beds in any one day	....	....	....	....	....	685
Lowest number of oocupied beds in any one day	....	....	....	....	....	584

The inereased work done in the Infirmary has been the only means by which the strain on the Hospital accommodation has been relieved.

The seeond stage of the modernisation of the Main Bloek to provide further Staff accommodation is being eagerly antieipated, since the faet that the majority of the Nursing Staff is still non-resident makes effective administration of the Infirmary somewhat diffieult.

GENERAL CONVALESCENT HOMES.

Wassell Grove Convalescent Home for Women and Children.

As well as the ordinary repairs and upkeep, the heating of this Institution has been materially improved during the year by inereasing the amount of heat in the corridors. This proved of definite value during the winter months.

The total number of admissions during the year was 667, and of these 156 were Out-relief cases and the remainder from Dudley Road Hospital, Selly Oak Hospital and Selly Oak Infirmary respectively. The call for accommodation for Out-relief cases, however, is mainly confined to the summer months. There were 304 children admitted during the period. The daily average of patients in the home was 34. The Institution is open throughout the year.

Tower House Convalescent Home for Nurses.

This Institution has proved of great value to the Nursing Staff during the past year. More and more use is being made of this Institution as it becomes better known.

"Oaklands" Convalescent Home for Men and Boys.

The admission of men and boys for the year totalled 611. The main diseases for which care was continued at the Home were as follows:—

Pneumonia	.....	.....	.....	175
Rheumatic Conditions	.....	.....	.....	106
Debility	.....	.....	.....	104
Gastric and Duodenal Ulcers	.....	.....	.....	65
Other Lung Conditions	.....	.....	.....	56
Kidney Conditions	.....	.....	.....	18
Empyema	.....	.....	.....	17
Appendicitis	.....	.....	.....	16
Surgical Tuberculosis	.....	.....	.....	14
Neurasthenia	.....	.....	.....	10
Heart Conditions	.....	.....	.....	10

MATERNITY AND NURSING HOMES.

(See pages 130, 142).

UNMARRIED MOTHERS AND ILLEGITIMATE CHILDREN.

(See page 137).

MATERNAL MORTALITY.

(See page 110).

HEALTH VISITING.

(See page 115).

CHILDREN ACT, 1908, CHILDREN AND YOUNG PERSONS ACTS 1932 AND 1933.

(See page 138).

BLIND PERSONS ACT, 1920.

The City Council are responsible for the administration of the Blind Persons Act, 1920, and have made arrangements with the Birmingham Royal Institution for the Blind for the following services to be provided on their behalf:

(1) Workshop employees.

At the end of the year under review there were 192 workshop employees registered. The trades practised are, for men—basket making, brush making, bedding cane furniture, chair seating, etc. For women—hand knitting, round and flat machine knitting, chair seating, etc. Although the weekly pay of these employees is at the Trade Union or other standard rate customary in the particular class of work on which the blind person is employed, the handicap of blindness prevents most blind persons from earning a livelihood if they are paid only what they earn on a strictly commercial basis. It is necessary, therefore, to augment their earnings, and during 1934-5 the City Council contributed £11,144 towards this augmentation.

(2) Home Workers.

There are 29 of these workers registered. Their ages vary from about 20 to 70 years, and the occupations carried out are similar to those of the workshop employees, plus such work as wood-chopping, piano tuning and repairing, music teaching, netting, boot repairing, etc.

Each home worker is provided with the requisite tools and equipment for his particular trade, and where necessary worksheds are provided. Raw materials are supplied at cost price, and every assistance is given in helping him to dispose of his goods. Augmentation of earnings is provided for the home worker, and the amount paid by the City Council for this purpose was £1,106.

(3) Unemployables.

These constitute the largest category of the blind, and 1,105 were registered in 1934. The needs of these persons are two-fold—financial and social. Financial assistance is provided by the Local Authority making up their income to 20/- per week. The cost to the Corporation of this service was £13,497. As regards social assistance, the pivot of this service is the Home Teacher, whose duties include the teaching of Braille and Moon type, pastime occupation, home visiting and welfare work. The aim of the service is to secure that systematic home visiting should be provided for all blind persons needing it.

Cowley Home.

This Home provides accommodation for some 12 homeless blind women. The contribution to the cost by the Local Authority for 1934-5 was £395.

Other responsibilities in relation to the welfare of the blind undertaken by the City Council, include such matters as the maintenance of blind children at Sunshine Home. The contribution to the cost by the Local Authority for 1934-5 was £100.

The following table gives particulars relating to *all* blind persons resident in Birmingham, including those mentioned above as coming within the scope of the Public Health Committee's responsibilities.

					Males.	Females.	Total
Babies in Sunshine Home	...	...	...	...	4	1	5
Babies at home	...	...	...	...	6	1	7
Babies in Public Assistance Institutions	...	...	...	...	—	1	1
Children at School—Resident	...	...	...	...	14	16	30
Children at School—Day	...	...	...	...	6	8	14
Children of school age at home	...	...	...	...	2	2	4
Children of school age in Public Assistance Institutions	...	...	...	...	8	1	9
Children of school age in Public Health Department Hospitals					1	1	2
Adults in training—Resident	...	...	...	...	5	3	8
Adults in training—Day	...	...	...	...	13	7	20
Adults awaiting training	...	...	...	...	3	—	3
Workshop workers recognised	...	...	...	...	128	64	192
Other blind employees	...	...	...	...	13	6	19
Trained home workers	...	...	...	...	15	14	29
Unemployables at home	...	...	...	...	417	563	980
Unemployables in Public Assistance Institutions	...	...	...	...	34	57	91
Unemployables in Public Health Department Hospitals					7	15	22
Unemployables in Cowley Home	...	...	...	...	—	12	12
					676	772	1,448
					—	—	—

REMOVAL OF INFIRM AND AGED PERSONS.

During the year, 33 cases were investigated under Section 38 of the Birmingham Corporation (General Powers) Act, 1929, as compared with 38 and 28 in 1933 and 1932 respectively.

The administration of this Section has continued to give opportunities, freely used, for a marked degree of co-operation with the Relieving Officers. Most of the cases were subsequently admitted to an Institution; others were found to be unsuitable for removal.

Formal application to the Magistrates was not required.

III. SANITARY CIRCUMSTANCES.

WATER SUPPLY.

I am informed by Mr. Broadley, Secretary to the Water Department, that work has been carried on continuously throughout the past year on the extension of the third main on the Elan Aqueduct from Wales.

During the year now ended the third main has been completed on Caethon and Deepwood Siphons and similar work is in progress on Clywedog and Lugg Siphons.

The quality of the water has been good and the quantity sufficient to obviate the need of any recourse being made to the local sources of supply.

Advantage is being taken of this state of affairs to dismantle the obsolete pumping plant at Longbridge and Short Heath Pumping Stations. New plant is in course of erection at both these Stations and should be available during the coming summer if any unforeseen circumstance should arise which necessitates their use for supply.

The new 36in. steel main from Raddlebarn Road to Highter's Heath Reservoir has been completed on the Middle Level Zone. A similar 36in. main from Longbridge to West Heath is in course of construction.

The 60in. steel trunk main from Frankley to White Hill is making steady progress.

Considerable building development has been in progress but no particular difficulty has been encountered in providing an adequate supply of water, although it has been necessary to augment considerably the gangs engaged on mains extensions.

WELLS.

Some 385 dwellings within the city area derive their water supply from wells. Most of these are shallow wells on the outskirts of the city, whilst there are over 100 deep and artesian wells in the centre of the city where the water is used for industrial purposes. The shallow wells are in a large proportion of a character rendering them liable to sudden gross pollution, but many of the properties which they supply continue to be a considerable distance from the Corporation mains.

Special attention has been given to shallow wells connected with dairies on farms, and 55 samples were taken of various wells for chemical and bacteriological analyses during the year.

RIVERS AND STREAMS.

The thirteenth annual report of the Tame Basin Joint Committee observes that a much greater amount of work has been undertaken for the more effective purification of the sewage of the area during the past year than in any similar period, and promises with some confidence the achievement of their object of improving the condition of the head waters of the River Tame.

In particular, attention has been paid to the pollution of rivers by storm water and the methods by which this pollution can be minimised.

SEWERAGE.

The City Engineer and Surveyor informs me that new sewers were constructed during the year 1934 with a total mileage of 35.88 miles.

The principal sewerage schemes completed during the year include the following:—

Sewerage of Bristol Road South, Steel Road, Tessall Lane, etc., undertaken to provide for the house building development in the area, and to do away with numerous dumbwells to existing property.

Handsworth Wood Sewerage, Section I, which includes extension of the Tame Valley sewer from a point near Gt. Barr Station to the western side of the Hamstead Hall Estate. This sewer is required for the drainage of the Hamstead Hall Estate and the Cherry Orchard Estate, both in course of development by private enterprise.

Upper Cole Valley sewer which is being constructed at the expense of the Solihull Urban District Council for the drainage of the Solihull Lodge area of their district now in course of development. Their original proposal was to construct a small disposal works, but the Ministry of Health objected and suggested they arrange to drain the area to the Birmingham sewers.

Quinton Sewerage, Part I., Redhall Farm Estate, provides the necessary branch sewers for the drainage of the Redhall Farm Estate now in course of development by private enterprise.

Lindsworth Hill Valley sewer constructed to drain the Lindsworth Hill Estate, now in course of development by private enterprise, to the Rea Valley main sewer.

The brook course through the University Grounds, Bristol Road. Culverts enlarged to provide for additional run off from the Hospital site.

With regard to the works authorised by the Birmingham Corporation (Rivers Improvement) Act, 1929, the section of the River Rea between its junction with the River Tame and the crossing under the canal near Princes Power Station, and also the length from Duddeston Mill weir to Lawley Street has been widened, deepened and improved, and the contract for the enlargement of the first section of the Rea Valley main sewer from Lawley Street to MacDonald Street has been commenced.

Year ending December, 1934.

	F. W. Sewers. Lin. Yds.	S. W. Sewers. Lin. Yds.
Sewers laid by Contract	7,425	1,888
Sewers laid by Direct Labour	5,427	4,608
Sewers laid by Private Enterprise	17,567	25,368
	30,419	31,864
	=35.38 miles.	

CLOSET ACCOMMODATION AND SCAVENGING AND REFUSE DISPOSAL.

I am indebted to Mr. Codling, General Manager of the Salvage Department, for the following information.

PROVISION OF DUSTBINS.

Dustbins are now installed at all properties throughout the city for the temporary storage of refuse pending its removal, with the exception of a few old properties which still have dry ash pits, and these are being converted to conform with modern requirements as and when circumstances permit.

The voluntary dustbin hire scheme, introduced eleven years ago, still continues to receive the support of property owners, and at December 31st, 1934, there were 9,407 owners hiring 89,029 dustbins.

COLLECTION OF REFUSE.

The Department continues to increase its fleet of electrically propelled vehicles for the collection of refuse, and during the past twelve months has purchased 7 electric vehicles. These are of the low loading type, fitted with pneumatic tyres and special covers for preventing the dissemination of dust during the loading of the vehicle.

DISPOSAL OF REFUSE.

The whole of the refuse produced in the city is now dealt with by means of separation and incineration at the five modern works of the Department. The refuse from the various city markets is treated at the main works of the Department at Montague Street, where a special plant is installed for this purpose.

This plant is of the latest design and is the largest municipal plant of its kind in the country.

CESSPOOLS.

There are 626 cesspools in the city receiving regular attention. During the past twelve months, 17 cesspools have been abolished and 76 new cesspools serving premises in the outlying districts, have been constructed.

Only two cesspools are serving premises in populous parts of the City, one of these being a sewage cesspool and the other a waste water cesspool.

SANITARY PANS.

The Department is regularly emptying 487 Sanitary pans. During the past twelve months 8 were converted to the W.C. System. There are no sanitary pans serving premises in the populous areas.

PRIVY MIDDENS.

There are 162 privy middens in the city receiving regular attention, and of this number 9 are serving premises in populous areas. During the past twelve months 9 privy middens have been abolished.

SANITARY INSPECTION.

The work of the general sanitary inspectors has been carried on steadily and vigorously throughout the year, and the following statement indicates the main headings under which visits were paid:—

For systematic house inspection	...	...	...	...	...	...	42,156
For housing complaints	...	...	...	...	...	...	46,124
For infectious diseases	...	...	...	...	...	...	8,897
For inspection of courts	...	...	...	...	...	...	4,184
For inspection of manure receptacles	...	...	...	...	...	...	1,216
For inspection of drainage (construction or repair)	...	...	...	...	...	...	5,734
For drain tests (smoke or water)	...	...	...	...	...	...	601
To common lodging houses	...	...	...	...	...	...	308
To houses let in lodgings	...	...	...	...	...	...	4,516
To tents, vans and sheds	...	...	...	...	...	...	133
To offensive trade premises	...	...	...	...	...	...	224
To workshops and factories, etc.	...	...	...	...	...	...	5,540
Under the Rats Order	...	...	...	...	...	...	2,894
To milkshops and stores	...	...	...	...	...	...	8,254
To ice cream vendors	...	...	...	...	...	...	2,895
For miscellaneous complaints	...	...	...	...	...	...	6,753
To see owners or agents	...	...	...	...	...	...	4,332
For other purposes	...	...	...	...	...	...	13,974
Unsuccessful visits	...	...	...	...	...	...	6,765
 Total visits and re-visits	...	...	...	...	...	...	165,500

The total number of dwelling houses inspected was 11,503, of which 4,072 were examined in the course of the systematic house-to-house inspection of selected streets. The remaining houses inspected were largely those in respect of which a complaint had been received. Of the total of 11,503 examined, 9,541 were found to need repairs of some kind. During the year notices were served for the following work to be done:—

Houses to be disinfected	...	...	...	...	...	...	2,371
Repairs to houses	...	...	...	...	...	...	90,210
Houses to be cleansed by owner	...	...	...	...	...	...	3,278
Houses to be cleansed by tenant	...	...	...	...	...	...	79
Houses to have better ventilation	...	...	...	...	...	...	394
Houses to have separate water supply	...	...	...	...	...	...	840
Houses to be provided with damp course	...	...	...	...	...	...	408
Water or filth to be removed from cellars	...	...	...	...	...	...	208
Spouting to be put in order	...	...	...	...	...	...	2,488
Water closets to be repaired or re-constructed	...	...	...	...	...	...	4,629
Water closets to be cleansed	...	...	...	...	...	...	1,582
Additional water closets to be provided	...	...	...	...	...	...	51
Wash houses or ashplaces to be repaired or limewashed	...	...	...	...	...	...	1,993
Soilpipes to be repaired or removed	...	...	...	...	...	...	140
Defective drains	...	...	...	...	...	...	1,620
Additional drains needed	...	...	...	...	...	...	730
Sanitary sinks to be provided	...	...	...	...	...	...	888
Sink bend pipes to be repaired	...	...	...	...	...	...	734
Yards to be paved or repaired	...	...	...	...	...	...	1,250
Accumulations of rubbish, manure, etc., to be removed	...	...	...	...	...	...	200

Internal water supply has been provided to 1,234 houses and 65 wash houses which previously had to rely on a tap in the yard. This work has been carried out under the provisions of the Birmingham Corporation Act, 1929, under which the Corporation bears half the approved cost of the work. The amount expended in this way during 1934 was £3,870.

Closely connected with an adequate water supply inside the house is the provision of a suitable and efficient sink. Last year 888 sanitary sinks were provided and 734 sinks were put in order.

In 3,357 cases the notice related to the cleansing, in 1,056 to the painting, and in 394 to the improvement of ventilation of premises.

A large amount of work was done in improving yards and outbuildings. Notices were issued for 51 additional water closets to be provided, for 1,582 closets to be cleansed and made free from obstruction, and for 4,629 to be repaired. Repairs or additions to the drainage were required in 2,610 cases, and the improvement of wash houses or ashplaces in 1,993 instances.

A staff of 7 men is utilised by the Public Health Department for the purpose of cleansing some of the worst courts in the City, together with the water closets and ashplaces situated in them, subject to an agreed charge being paid by the owners of the houses. The total number of cleansings effected last year was 8,961, over 190 courts being dealt with. In the course of this work a large number of water closets and drain traps were cleared of obstructions.

The total number of notices served during the year was 10,124, of which 6,553 were preliminary informal notices, and 3,571 were statutory notices.

The summonses taken out during the year were as follows:—

General Nuisances	...	...	...	5
Inside Water Supply	...	...	...	13
Houses let in lodgings	...	...	...	8
Excessive Smoke	...	...	...	4
Shops Acts	...	...	...	109
Common Lodging Houses	...	...	...	1
Rent Acts	...	...	...	1
				141

RATS AND MICE.

Throughout the year the provisions of the Rats and Mice Destruction Act have been systematically administered, special attention being paid to the matter during National Rat Week which was observed from November 5th to November 10th.

“Rat Week” in Birmingham was observed by a general campaign against these pests. About 2,000 handbills were distributed at cafés, food stores, warehouses, corn stores and any other premises where rats were suspected, and the occupiers were requested to make a special effort to exterminate any rats and to keep a record of their activities.

The following is a summary of these reports together with information gathered by the Sanitary Inspectors:—

Premises where rat catchers were employed...	...	...	...	22
Premises “rat proofed”	...	...	...	35
Drains tested	...	...	...	4
Rats known to have been destroyed	...	...	...	1,502

In addition, special steps were taken by various large industrial undertakings and Corporation Departments.

The London, Midland and Scottish Railway Co., who employ seven rat catchers, laid nearly 4,000 baits, 25 dead rats being found; the Great Western Railway Co. laid 540 baits of which 120 were taken and 15 dead rats found. The Salvage Department, who employ rat catchers from time to time, laid 3,000 baits of which the greater part were taken; the Markets and Fairs Department laid 400 baits, and 22 rats were killed, 25 others being found dead, and the Public Works Department, who laid 15,368 baits during the year, found that 83 per cent. of these had been taken.

FACTORIES AND WORKSHOPS.

The visits paid under the Factory and Workshops Acts numbered 5,540, 3,039 of these being visits of inspection. As a result of these visits notices were served as follows:—

Want of cleanliness	...	...	...	...	...	...	...	...	...	417
Want of ventilation	...	...	...	...	...	...	...	...	...	20
Overcrowding	...	...	...	...	...	...	...	...	...	0
Want of drainage of floors	...	...	...	...	...	...	...	...	...	2
Other nuisances	...	...	...	...	...	...	...	...	...	148
Insufficient sanitary accommodation	...	...	...	...	...	...	...	...	...	39
Unsuitable or defective sanitary accommodation	...	...	...	...	...	...	...	...	...	102
Sanitary accommodation not separate for the sexes	...	...	...	...	...	...	...	...	...	13
Illegal occupation of underground bakehouse	...	...	...	...	...	...	...	...	...	0

Arrangements are in force co-ordinating the work of the Public Health Department in some directions with that of the office of H.M. Superintending Inspector of Factories for the Midland area. This has related chiefly to insufficient or defective sanitary accommodation, or to the investigation of nuisances arising in factories and affecting neighbouring premises. This form of co-operation has continued to prove of great value, preventing overlapping, duplication of action or on the other hand failure to take action, and at the same time removing risks of misunderstanding between two public departments engaged on closely allied work.

The number of workshops on the register is 3,814 and the visits for inspection paid to them numbered 2,588. In addition to these visits 369 were made to factories, 82 to workplaces, etc.

SMOKE ABATEMENT.

Observations for excessive emissions of smoke from chimneys are carried out by two inspectors working under the various Acts dealing with this subject, viz:—

Public Health Act, 1875.

The Birmingham Corporation (Consolidation) Act, 1883.

Birmingham Corporation Act, 1922.

Public Health (Smoke Abatement) Act, 1926.

The following table sets out particulars of observations on chimneys other than those of private dwelling-houses. There are in the City some 1,036 such chimneys, 384 in connection with muffles.

		1934.	1933.	1932.	1931.	1930.
Total number of observations	...	5,127	5,784	5,735	5,597	4,883
Excessive Smoke—						
From Boiler Fires	...	72	88	79	116	102
From Boilers and Furnaces	...	8	12	8	11	14
From Metallurgical Furnaces	...	22	24	29	29	43
Total number of excessive emissions	...	102	124	116	156	159
Number of prosecutions	...	4	4	6	18	39
Convictions	...	4	4	6	18	38
Total Amount of fines	...	£3 0 0	£6 10 0	£6 0 0	£22 0 0	£52 10 0
Average per case	...	15 0	£1 12 6	£1 0 0	£1 4 6	£1 7 8
Cautions given	...	101	117	105	133	113

Additional observations are carried out each month on the atmospheric impurities carried down in the rainfall. These observations are carried out on lines comparable with those for a number of other towns. The records are obtained by means of two gauges, one in the centre of the City and one in the southern outskirts. The results are fully recorded in the Annual Report of the City Analyst.

OFFENSIVE TRADES.

The offensive trades carried on in the City are as follows :—

Blood boiler	...	...	...	...	1
Bone boiler	...	...	...	...	1
Fellmonger	...	...	...	...	2
Tanner	...	...	...	...	1
Soap boiler	...	...	...	...	5
Fat extractor	...	...	...	...	1
Tripe boiler	...	...	...	...	47
Gut scraper	...	...	...	...	3
Rag and bone merchant	...	...	...	...	21

These firms in general are conducting their business with the production of but little nuisance. The total number of visits paid by the Sanitary Inspectors to premises where offensive trades were carried on was 224 and no informal notices and no statutory notices were served. Defects were remedied on the oral request of the Inspector, without serving of these notices. No prosecutions were necessary.

One rag and bone dealer, one gut scraper and one fat extractor ceased business during 1934. One tripe boiler was added during the year, and two of these businesses were transferred to other persons.

COMMON LODGING HOUSES.

At the end of the year there were 26 registered Common Lodging Houses in the City, affording accommodation for 1,837 males and 71 females.

It is satisfactory to note that the unusually high standard of cleanliness and sanitation established in these premises in Birmingham continues to be maintained.

In no instances was it found necessary to resort to legal proceedings to remedy contraventions of the regulations governing the management of these houses.

No. of houses on register (for males only)	...	...	...	...	24
No. of houses on register (for females only)	...	...	...	...	2
No. of lodgers allowed	...	...	...	...	1,908
No. of day visits	...	...	...	...	217
No. of night visits	...	...	...	...	67
No. of Special Visits	...	...	...	...	24
Defects found	...	...	...	...	68
No. of summonses	...	...	...	...	1

HOUSES LET IN LODGINGS.

During the year 62 houses were put on the register of houses let in lodgings, and 72 were removed, so that at the close of the year there were 315 of these houses on the register, containing 1,960 rooms.

They were let as follows :—

No. of rooms let as single rooms	...	...	...	...	835
No. of lets of two or more rooms together	...	...	...	...	464
Certified accommodation	...	...	...	...	4,427 persons

The visits and re-visits paid during the year numbered 4,516, an average of 14 per house.

Notices were served for the following matters :—

Repairs ordered	...	...	...	...	...	...	...	2,056
Overcrowding	...	...	...	...	...	...	...	3
Cleansing required	...	...	...	...	...	...	...	355
Provision for cooking	...	...	...	...	...	...	...	170
Provision for food storage	...	...	...	...	...	...	...	224
Fire extinguishers needed	...	...	...	...	...	...	...	200
Lighting on stairs	...	...	...	...	...	...	...	101
Water supply	...	...	...	...	...	...	...	34
Other defects	...	...	...	...	...	...	...	249
Summons issued for non-compliance with Bye-laws								8

The steady application of the bye-laws relating to houses let in lodgings is gradually raising the standard of accommodation. This continues however to be of very poor quality in a large number, and the evil of subletting by persons unable or unwilling to live up to their responsibilities as landlords continues to be a serious factor in the housing difficulties of this unfortunate section of the community.

TENTS, VANS, AND SHEDS.

The number of visits paid to these by the inspectors was 133. In a number of cases particulars were referred to the City Surveyor with a view to action under the Birmingham Corporation (General Powers) Act, 1929.

CANAL BOATS.

During the year 1934 the number of boats inspected on the canals within the City area was 1,143.

The 1,143 boats inspected were registered for the accommodation of 3,448 persons, and when inspected were found to be carrying 1,410 men, 817 women, and 711 children, a total of 2,938 persons, represented in terms of adults as 2,582.5.

The following table shows the number of boats inspected during the last five years, giving the number of persons whom the boats were registered to accommodate and the actual number of occupants at the time of inspection :—

Year.	No. of boats inspected.	Registered to carry (adults).	Actually occupied by :			Total occupying	Equivalent to adults
			Men.	Women.	Children.		
1930	1,189	3,787	1,446	895	850	3,191	2,766
1931	1,131	3,599	1,359	845	737	2,941	2,572.5
1932	1,147	3,558	1,498	766	655	2,919	2,591.5
1933	1,147	3,520	1,467	824	725	3,016	2,653.5
1934	1,143	3,448	1,410	817	711	2,938	2,582.5
<hr/>							
Boats with one contravention each			11	making total contraventions			...
Boats with two contraventions each			38	making total contraventions			...
Boats with three contraventions each			28	making total contraventions			...
Boats with four contraventions each			3	making total contraventions			...
Boats with five contraventions each			—	making total contraventions			—
<hr/>			<hr/>	<hr/>			<hr/>
Totals			80				183
<hr/>			<hr/>	<hr/>			<hr/>

Complaint Notes were duly served on the owners in all cases, 80 Complaint Notes were issued during 1934, and 37 were brought forward from 1933. 81 Notices were complied with during the year, leaving an outstanding balance of 36.

During the year certificates were returned by owners signed by the various Canal Boat Inspectors, showing that 195 complaints had been remedied.

The following table shows the number and character of contraventions found and remedied during the year:—

Contraventions referring to:—		Outstanding and brought forward from 1933.	Found during 1934.	Remedied during 1934.	Carried forward to 1935.
Cabins requiring repairs	...	...	7	66	42
Cabins requiring painting	...	...	23	61	57
Cabins leaking	...	...	8	9	15
Requiring lettering	...	...	24	36	59
Registration	...	...	9	3	12
Not producing certificates	...	...	—	—	—
Dirty cabins	...	...	—	—	—
Overcrowding	...	...	3	5	5
Separation of sexes	...	...	3	3	5
Water vessels	...	...	—	—	—
No Pumps	...	...	—	—	—
Ventilation	...	...	—	—	—
No certificate identifying owner of boat	...	—	—	—	—
Cabins not habitable	...	...	—	—	—
		—	—	—	—
	Totals	77	183	195	65
		—	—	—	—

It has not been necessary during the year to take any Police Court proceedings.

INFECTIOUS DISEASE.

No cases of infectious disease have occurred during the year.

REGISTRATION OF BOATS.

There was a net increase of 6 boats registered at Birmingham during the year 1934, thus bringing the total up to 567.

The 567 boats on the register are classified as follows. It will be noticed that steam boats continue to remain at three:—

Ordinary boats	...	...	...	483
Motor boats	...	...	...	81
Steam boats	...	...	...	3
				Total 567
				—

SHOPS ACTS 1912—1928*

The number of visits and investigations made during 1934 was 8,732. The following contraventions of the Acts were reported:—

In 152 shops notices giving day of closing for weekly half-holiday were not exhibited.

Notices declaring exempted goods were not displayed in 108 shops, which had remained open after closing hour on weekly half-holiday for the sale of such goods.

In 115 instances the employers had failed to provide the prescribed form relating to the assistant's weekly half-holiday.

In 18 cases it was found that the assistants were not having such intervals for meals as are laid down in the Act.

* The Shops Act, 1934, did not come into operation until December 30th, 1934.

In 52 shops, where young persons were employed, the employers had failed to exhibit the notice referring to the specific provisions of the Act.

In 6 cases the employers had failed to provide seats for females according to scale.

In 203 cases shops were found not to be closing at the statutory time.

In no cases were hairdressers shops found open on Sunday.

Proceedings were taken against 109 shopkeepers for contraventions of the Acts and Closing Orders, with the following results:—

(a) *Under the Butchers Closing Order 1921. (Shops Act 1912).*

- 1 Defendant was fined £5/-/- for a third offence.
- 3 Defendants were fined £1/-/- each.
- 1 Defendant was fined 10/-.

(b) *Under the Shops (Hours of Closing) Act 1928.*

- 1 Defendant was fined £2/-/-
- 4 Defendants were fined £1/-/- each.
- 97 Defendants were fined 10/- each.
- 2 Summons not served.

(c) *Under the Shops Act 1912.*

- 1 Defendant was fined £1/-/-.
- 1 Defendant was fined 10/-.

Totals:—

(a) 5 Cases—Fines	...	...	8	10	0
(b) 104 Cases—Fines	...	...	54	10	0
(c) 2 Cases—Fines	...	...	1	10	0
109 Cases—Fines			£64	10	0

MORTUARY—SUMMER LANE.

In the early part of 1930, Mr. and Mrs. T. Sidney Walker indicated that they were proposing to build a small mortuary with accommodation for three coffins at the corner of Summer Lane and Henrietta Street, together with a small house for the caretaker, and that, if over a period of three years it was found to fulfil a useful purpose, they proposed to offer it to the City. In March, 1930, this proposal was considered by the General Purposes Committee, who expressed their appreciation of Mr. and Mrs. Walker's public-spirited proposal, and asked the Public Health Committee to co-operate in the scheme.

In March, 1934, three years had elapsed since the building was first opened, and experience had proved that the provision was appreciated, and that, with the passage of time, it would be increasingly used as a resting place to which the dead could be brought and remain until time for burial, instead of being kept in small houses with living relatives. The Public Health Committee, on behalf of the Council, therefore assumed responsibility for the future maintenance of the building on April 1st.

IV. HOUSING.

NEW HOUSES.

Data received from the City Engineer and Surveyor show that 837 houses were built by the Municipality and 4,226 by private enterprise during 1934. The houses built by the Corporation are for the working class, while those built privately have generally been of a larger type. The houses built year by year since 1920 are shown in the subjoined statement.

	No. of houses erected by private enterprise.	Corporation houses.	Total.
1920	244	553	797
1921	426	970	1,396
1922	382	810	1,192
1923	556	1,621	2,177
1924	1,201	1,992	3,193
1925	1,774	3,215	4,989
1926	1,775	5,159	6,934
1927	2,445	4,007	6,452
1928	1,487	3,505	4,992
1929	2,456	4,359	6,815
1930	1,738	6,715	8,453
1931	1,983	3,919	5,902
1932	2,159	1,737	3,896
1933	3,028	2,029	5,057
1934	4,226	837	5,063
Total		25,880	41,428
Total		25,880	67,308

The wards in which new houses have been built since 1920 are indicated below:—

	Ward.	Houses erected by private enterprise.	Corporation Houses.	Total.
Central Wards.	St. Paul's	2	—	2
	St. Mary's	4	—	4
	Duddeston and Nечells	4	175	179
	St. Bartholomew's	2	196	198
	St. Martin's and Deritend	3	—	3
	Market Hall	—	—	—
	Ladywood	21	—	21
Total Central Wards		36	371	407
Middle Ring.	Lozells	7	—	7
	Aston	114	—	114
	Washwood Heath	942	1,659	2,601
	Saltley	474	3,005	3,479
	Small Heath	136	1,260	1,396
	Sparkbrook	2	—	2
	Balsall Heath	9	—	9
	Edgbaston	702	—	702
	Rotton Park	166	—	166
	All Saints'	35	—	35
Total Middle Ring		2,587	5,924	8,511
Outer Ring.	Soho	203	—	203
	Sandwell	953	688	1,641
	Handsworth	935	114	1,049
	Perry Barr	1,581	5,482	7,063
	Erdington North	2,350	4,826	7,176
	Erdington South	1,178	1,809	2,987
	Yardley	1,578	3,261	4,839
	Acock's Green	2,135	7,461	9,596
	Sparkhill	3,730	2,862	6,592
	Moseley and King's Heath	1,982	2,242	4,224
	Selly Oak	1,048	27	1,075
	King's Norton	846	560	1,406
	Northfield	2,615	5,038	7,653
	Harborne	2,123	763	2,886
Total Outer Ring		23,257	35,133	58,390
Grand Total		25,880	41,428	67,308

No. OF EXISTING HOUSES.

From a return prepared by the Rates Department of the City Treasurer's Department, it appears that on April 1st, 1935, there were 240,606 dwelling houses and 18,156 shops with dwelling houses attached in the City. Some idea of the relative size of the dwelling houses may be gathered from the assessments for rating purposes which were as follows:—

Assessment.	No. of dwelling houses.
Up to and including £5	4,796
Over £5 and up to £10	115,663
Over £10 and up to £15	52,137
Over £15 and up to £20	36,046
Over £20 and up to £50	28,537
Over £50 and up to £100	3,109
Over £100	318

ACTION IN RESPECT OF INDIVIDUAL DWELLING HOUSES.

For detailed information as to the nature of the defects disclosed by inspection, reference should be made to page 29. The statement below, set out in the form required by the Ministry of Health, is in respect of the number of houses dealt with under the different statutory provisions relating to dwelling houses.

1. INSPECTION OF DWELLING-HOUSES DURING THE YEAR:—

(1) (i) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	11,503
(ii) Number of inspections made for the purpose	96,970
(2) (i) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidation Regulations, 1925	4,072
(ii) Number of inspections made for the purpose	42,156
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	4,614
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	9,541

2. REMEDY OF DEFECTS DURING THE YEAR WITHOUT SERVICE OF FORMAL NOTICES:—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	6,895
---	-------

3. ACTION UNDER STATUTORY POWERS DURING THE YEAR:—

A.—Proceedings under sections 17, 18 and 23 of the Housing Act, 1930:—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	1,504
(2) Number of dwelling-houses which were rendered fit after service of formal notices:	
(i) By owners	2,333
(ii) By local authority in default of owners	237

B.—Proceedings under Public Health Acts:—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	1,516
(2) Number of dwelling-houses in which defects were remedied after service of formal notices:	
(i) By owners	1,601
(ii) By local authority in default of owners	45

C.—Proceedings under sections 19 and 21 of the Housing Act, 1930:—

(1) Number of dwelling-houses in respect of which Demolition Orders were made	404
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	301
(3) Number of dwelling-houses in respect of which official Representations were made	445
(4) Number of dwelling-houses in respect of which undertakings under Sec. 19 (2) were accepted:	
(a) Not to use in future for human habitation	21
(b) To carry out works to render fit for human habitation	38
(5) Number of dwelling-houses rendered fit for human habitation in pursuance of undertakings	45

D.—Proceedings under section 20 of the Housing Act, 1930:—

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	9
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	none
(3) Number of separate tenements in respect of which official Representations were made	11

ACTION IN RESPECT OF CLEARANCE AREAS.

The following table shows briefly, as at December 31st, 1934, the position with regard to Orders made in respect of Clearance Areas.

TITLE OF ORDER.	Date of Representation.	Date of making of Order.	Date of Confirmation.	Number of houses in Clearance Area.	Number of persons to be dispossessed
Glover Street C. P. O., No. 1	24/6/31	4/3/32	20/9/32	48	240
Glover Street C. P. O., No. 2	24/6/31	4/3/32	20/9/32	7	
Skinner Lane C. O.	24/6/31	3/1/33	22/6/33	98	420
Pope Street C. O.	1/3/33	30/5/33	9/3/34	23	124
Camden Street C. O., No. 1	1/3/33	30/5/33	9/3/34	17	82
Camden Street C. O., No. 2	1/3/33	30/5/33	9/3/34	21	80
Florence Street C. O.	4/4/33	30/5/33	9/3/34	53	240
Emily Street C. P. O.	29/9/33	9/1/34	27/10/34	234	999
Charlotte Street C. O., No. 1	29/9/33	9/1/34	30/8/34	30	164
Charlotte Street C. O., No. 2	29/9/33	9/1/34	30/8/34	13	52
Charlotte Street C. O., No. 3	29/9/33	9/1/34	30/8/34	8	27
Mary Ann Street C. O.	29/9/33	9/1/34	30/8/34	9	28
Drury Lane C. O.	29/9/33	9/1/34	16/10/34	32	126
Fox Street C. O., No. 1	29/9/33	9/1/34	16/10/34	42	163
Fox Street C. O., No. 2	29/9/33	9/1/34	16/10/34	12	41
Bartholomew Street C. O.	29/9/33	9/1/34	16/10/34	15	55
Banbury Street C. P. O., No. 1	29/9/33	9/1/34	16/10/34	28	119
Banbury Street C. P. O., No. 2	29/9/33	9/1/34	16/10/34	5	24
Nova Scotia Street C. O.	11/7/34	31/7/34	Confirmation orders	26	104
Bartholomew Street C. P. O., No. 1	29/9/33	9/1/34		47	241
Bartholomew Street C. P. O., No. 2	29/9/33	9/1/34	not received	15	55
Albion Road, Greet, C. P. O.	4/5/34	31/7/34	during 1934	21	104
Bromsgrove Street C. O., No. 1	5/4/34	5/6/34	"	10	33
Bromsgrove Street C. O., No. 2	4/5/34	5/6/34	"	64	276
Hurst Street C. O.	16/3/34	5/6/34	"	143	524
Inge Street C. O.	7/7/34	31/7/34	"	133	518
Lower Essex Street C. O., No. 1	16/3/34	5/6/34	"	7	26
Lower Essex Street C. O., No. 2	5/4/34	5/6/34	"	24	94
Lower Essex Street C. O., No. 3	4/5/34	5/6/34	"	50	212
Lower Essex Street C. O., No. 4	4/5/34	5/6/34	"	45	138
Holliday Street C. O.	6/4/34	5/6/34	"	14	58
Holliday Street C. P. O.	6/4/34	5/6/34	"	65	306
Steward Street C. O.	4/5/34	31/7/34	"	21	90
Glebe Street C. P. O.	4/5/34	Considered during 1935	"	106	400
Hunter's Vale C. P. O., No. 1	6/4/34	5/6/34	"	27	103
Hunter's Vale C. P. O., No. 2	6/4/34	5/6/34	"	26	115
Pritchett Street C. O., No. 1	7/7/34	31/7/34	"	4	23
Pritchett Street C. O., No. 2	7/7/34	31/7/34	"	15	72
Pritchett Street C. O., No. 3	7/7/34	31/7/34	"	4	24
Pritchett Street C. O., No. 4	7/7/34	31/7/34	"	21	86
Pritchett Street C. O., No. 5	7/7/34	31/7/34	"	26	131
Pritchett Street C. O., No. 6	7/7/34	31/7/34	"	4	31
New John Street C. O., No. 1	7/7/34	31/7/34	"	5	28
New John Street C. O., No. 2	7/7/34	31/7/34	"	9	44
New John Street C. O., No. 3	7/7/34	31/7/34	"	29	135
New John Street C. O., No. 4	7/7/34	31/7/34	"	23	123
Blews Street C. O., No. 1	7/7/34	31/7/34	"	24	111
Blews Street C. O., No. 2	7/7/34	31/7/34	"	6	29
Aston Road C. O.	7/7/34	31/7/34	"	19	107
TOTALS : 49 Areas				1,728	7,325

As shown on page 36, the building programme is making good progress, and the re-housing in connection with the Pope Street, Camden Street and Florence Street Areas was approaching completion at the time of preparation of this report, while the re-housing operations in respect of the Glover Street and Skinner Lane Areas were completed during 1934.

In all cases where a Compulsory Purchase Order has been made and confirmed in respect of a Clearance Area, the site thus made available will be utilized for re-housing purposes. As these Areas are not far distant from the centre of the City, the accommodation to be made available thereon will, it is hoped, prove to be a valuable contribution towards the satisfactory solution of the re-housing problem.

The whole of the Areas shown in the above table as having been represented, but in respect of which the Orders have not yet been confirmed, were the subject of a Local Public Inquiry conducted by an Inspector of the Ministry of Health in October, 1934. The results of this Inquiry will be reviewed in my Annual Report for 1935. Inspections were made of many other Areas, and reports and recommendations thereon were laid before the City Council at their meeting in February, 1935.

Whilst objections were lodged in respect of most of the properties included within Orders subject to confirmation by the Minister of Health, no unusual grounds for objection were disclosed. Appeals were entered in a few of those cases which would, had the appeal been pursued, have had to be decided at the County Court, but in each case the appeal was withdrawn before the date of hearing.

The Housing Bill at present before Parliament does not contain any provisions which would appear to be likely to retard the progress of the present quinquennial programme of Slum Clearance, and there is every likelihood that the rate of action in respect of unfit houses to be dealt with, either individually or by means of area action, will be maintained at the rate of approximately 2,000 houses per annum, provided, of course, that no unforeseen difficulties are encountered in relation to the re-housing operations.

During the year I included in one of my representations a caravan settlement, which included certain structures which were caravans in name only, being more or less permanently fixed in regard to their sites. Although the official award has not yet been received from the Ministry of Health, it is understood that the local advisers to the Ministry adopt the view that caravans are chattels, and as such are not appropriate for action in connection with Slum Clearance operations.

OVERCROWDING.

Of the total number of cases of overcrowding reported by the Health Visitors, Tuberculosis Visitors and Sanitary Inspectors (847), 646 were referred to the Estates Department, as compared with 725 and 566 in 1933 and 1932 respectively.

Of the 646 cases thus referred, 377 received assistance as follows from the Estates Department :—

Cases assisted, 377 :—

(1)	Corporation house or flat allocated	.....	.....	.....	.....	50
(2)	Corporation house or flat offered	.....	.....	.....	.....	75
(3)	Pre-war accommodation provided or to be provided	.....	.....	.....	.....	52
(4)	Privately owned occupation do.	.....	.....	.....	.....	21
(5)	Exchange house arranged, or being arranged	.....	.....	.....	.....	167
(6)	Alternative accommodation being provided	.....	.....	.....	.....	12

In 243 cases the conditions were not such as to allow of assistance, while 26 were still under review at the end of the year.

A detailed analysis of the accommodation occupied by the 847 cases of overcrowding reported during the year is given in the following table :—

SLEEPING ACCOMMODATION OF CASES REPORTED.

1934.

No. of occupants.	Combined bedroom and living room.	One bedroom.	Two bedrooms.	Three bedrooms.
2	3	7	4	—
3	34	43	13	4
4	25	122	32	2
5	20	55	35	7
6	10	47	64	6
7	4	13	68	3
8	3	8	62	2
9	—	7	56	7
10	—	2	32	7
11	—	1	15	4
12	—	—	10	2
13	—	—	4	2
14	—	—	1	1
	99	305	396	47

It will be noted that in the houses consisting of a combined bedroom and sitting room only, there were 37 cases where five or more persons slept in that room.

In the case of one-bedroomed houses, in 123 instances there were 5—8 persons sleeping in that bedroom, and in ten of them as many as 9—11 persons.

In the two-bedroomed houses there were 62 houses in which there was an average of five or more persons occupying each bedroom.

V. INSPECTION AND SUPERVISION OF FOOD.

FOOD PREMISES.

The supervision of the smaller retail food premises is carried out by the Sanitary Inspectors of the Public Health Department, while the larger wholesale premises are inspected by the Veterinary Department. Reference to the latter group will be found elsewhere in the report.

In regard to the smaller premises and food shops, each is reviewed in the light of Section 72 of the Public Health Act, 1925, and particular attention is paid to general cleanliness and to immediate removal of refuse.

During 1934 an extensive survey of food premises was continued. The survey related to the general conditions prevailing in the kitchens of such premises, and emphasis was laid on means for maintaining a reasonably low temperature, for the ready storage of food stuffs under cover, and for the efficient sterilising of kitchen and other utensils. At the same time steps were taken to ensure the provision of adequate and suitable accommodation and of facilities for personal ablution for the kitchen staff.

ICE CREAM.

In the early summer each year a special tour of inspection is made to all known ice cream premises. Under the proposed new local legislation now being considered it is hoped to obtain more supervision and control of these premises, and consequent improvement in general cleanliness amongst the smaller producers of this commodity which shall be comparable with that of the large and up-to-date manufacturers.

The conditions of lease of a municipal house happily do not allow ice cream to be retailed from such premises. It is also of benefit to the consumer that each year more ice cream is manufactured by the larger firms and retailed in wrappers by small confectioners.

MILK SUPPLY.

The area from which the City milk supply is drawn remains approximately the same, although each year less milk is produced within the City boundary. The bulk of the milk supply comes from within 50 miles of Birmingham, but in times of winter shortage, accommodation milk may come from as far afield as Scotland and Ireland.

MILK (Special Designations) ORDER 1923.

The number of dealers in the City licensed to sell designated milks is shown in the following table. Including the samples taken for the Ministry of Health, 145 samples of graded milk were taken, and the percentage of these found to be below the standard of the Milk (Special Designations) Order was 4.1, 5.5 and 12.3 for certified, Grade A (T.T.) and Grade A. milks respectively. Practically all of this milk is produced outside the City area.

NUMBERS OF LICENCES ISSUED.

				1933	1934
Producers of Certified Milk	...	...	...	1	1
Dealers in Certified Milk	...	...	...	13	13
Dealers in Grade A. (T.T.) Milk	...	...	...	50	37
Producers of Grade A. Milk	...	...	...	10	10*
Dealers in Grade A. Milk	...	...	...	124	95
Producers of Grade A. Pasteurised Milk	...	...	...	2	3**
Dealers in Grade A. Pasteurised Milk	...	...	...	7	8
Producers of Pasteurised Milk	...	...	...	20	21
Dealers in Pasteurised Milk	...	...	...	129	113
Supplementary licences—					
Certified	...	...	...	2	4
Grade A. (T.T.)	...	...	...	2	1
Grade A.	...	...	...	14	14
Pasteurised	...	...	...	6	7
				380	327

* As the result of an adverse report upon the herd of one of the producers of Grade A. milk by the City Veterinary Surgeon, this licence was cancelled in July, 1934.

** One of these businesses changed hands in August, 1934, resulting in the cancellation of one licence and the issue of a new one.

About 80 per cent. of the city milk supply is subjected to some form of heat. Although there is still a large sale for sterilised milk, the increasing demand for pasteurised milk has resulted in a further increase during the year in the number of licensed "positive holder" or "batch" pasteurisation plants.

The total number of samples taken for bacteriological examination during the year was 577, including 45 samples for the Ministry of Health.

162 samples of raw undesignated milk were taken during 1934, and of these 11, as compared with 7 in 1933, contained over 200,000 bacteria per c.c., and an additional 14, as compared with 6 in 1933, contained over 100,000 per c.c. The majority of these samples were taken from raw milk about to be subjected to the process of pasteurisation.

267 samples were taken of milk which had been pasteurised by the holder process and none of these had a count of over 100,000 bacteria per c.c., whilst 28 had a count of over 30,000 per c.c. These results reveal an improvement on those of 1933, but show the necessity for care that the limits of time and temperature are carefully observed. The higher counts are due largely to a high proportion of samples being taken from those plants which had not shown highly satisfactory results. In each case the firm concerned, where the pasteurisation was done within the city, was advised, and the procedure inspected in detail. In no case during the year were tubercle bacilli found in pasteurised milk.

MILK AND DAIRIES ORDER, 1926.

All matters referable to dairies come under the control of the Public Health Committee; matters relating to cows and cowsheds come under the Markets and Fairs Committee acting through the City Veterinary Department.

Owing to the continued increase in the amount of work to be dealt with by the general Sanitary Inspectors in connection with housing and other duties, it was considered desirable to appoint two Inspectors specifically to carry out duties in connection with milk and dairies. It is hoped that this will result in a closer degree of supervision of dairy premises and particularly of the various processing plants in the City.

The general standard of cleanliness in dairies has been maintained, and whilst it has not been necessary to serve formal notices, a number of minor defects have been remedied by means of letters or interviews. The number of persons who owing to unemployment enter the dairy trade without previous experience appears to be diminishing.

The number of dealers on the register is as follows:—

		1933.	1934.
Number of wholesale purveyors	...	125	123
Number of retail purveyors	...	1,083	1,076
Number of milkshops	...	3,494	3,413
Number of bottled milkshops	...	2,916	2,885
Number of bottled-milk purveyors	...	60	48
Total number of new registrations issued	...	630	362
Total number of transfer registrations issued	...	499	425
Total number of deletions from register	...	304	264

It will be noted that the demand for bottled milk in preference to loose milk continues to be reflected in the decrease in the number of loose milk shop registrations.

It has been customary to send to dairymen in December of each year a reminder letter for the renewal of designated milk licences, but as there has been a growing tendency for these letters to be disregarded, proceedings were taken against 7 dairymen and resulted in fines of 10/- in six cases and £1 in one case. A further prosecution was taken against a purveyor for selling bottled milk whilst unregistered. This resulted in a fine of 10/-.

THE INSPECTION OF COWS AND COWSHEDS WITHIN THE CITY AREA.

(Summary of Report by Mr. BRENNAN DE VINE, Chief Veterinary Officer).

At the end of the year 1934 there were 109 dairy farms housing 1,461 milch cows, in 231 registered sheds, and 61 milch cows in 7 sheds pending registration, etc.

For the purposes of the Milk and Dairies Order, 1926, the cows and cowsheds in City dairies are subject to regular veterinary inspection and each cowshed has been visited at least once a month, and during the year 3,147 visits were made. The health and cleanliness of the cows were generally good and constant attention has also been paid to the sanitary condition of the cowsheds.

Mastitis.—There were 55 cases of cows affected with acute catarrhal mastitis. In all of these cases the affected cows were kept isolated and their milk was prohibited from sale for human consumption.

Tuberculosis Order.—32 cases of tuberculosis in the City dairy herds were dealt with under the Tuberculosis Order, and on post-mortem examination all were found to be affected with tuberculosis.

Milk (Special Designations) Order, 1923.—At the end of the year there were ten producers in the City holding licences to produce Grade "A" milk and one to produce "Certified" milk. One of the conditions under which the licence to produce Grade "A" milk is granted by the local authority for the sale of same is:—

- (ii) An examination of the herd must be made once in every three months by a Veterinary Surgeon nominated by the Licensing Authority. Any animal certified as showing evidence of any disease which may injuriously affect the milk must be immediately removed from the herd and information as to its disposal given to the Licensing Authority.

At the 31st December ten farms within the City were producing Grade "A" Milk and special veterinary examination has been made of every milch cow in these herds and the usual three-monthly certificates issued. One farm within the City was producing "certified" milk. In this case all the cows in the herd are submitted to the tuberculin test twice a year and the licence is granted by the Ministry of Health.

The cleanliness and general sanitary condition of the cowsheds in City dairies were maintained at a high standard and every such cowshed was properly lime-washed or sprayed with lime or otherwise disinfected at least twice during the year.

In addition to several cases in which verbal instructions were given, it was necessary in eight cases to send notices in writing—in two cases the attention of the owner was drawn to the necessity for greater cleanliness of the cows and cowsheds, the other six notices were in respect of repairs and removal of manure.

A written notice was also sent asking that the overcrowding of cows in registered sheds be discontinued, and in a case where cows were being kept in a shed not intended for registration, notice was given that this was not permissible.

At two farms three sheds, which had been temporarily removed from the register on account of not being used, were renovated, put into use again and re-registered. Eight other sheds have been altered to comply with the requirements, and added to the register, attention being paid to the internal construction as well as to lighting, drainage and ventilation.

Ten sheds have been discontinued, the owners having given up keeping cows in these sheds for the sale of milk.

In one case the special permission of the Committee was obtained, permitting the owner to keep cows in two unregistered sheds for a period of twelve months, as the farm buildings are to be demolished. With regard to the other five sheds pending registration and in which cows are being kept, the necessary alterations, to make them fit for registration, have been deferred, as the district is scheduled for building purposes.

Two changes of occupancy have occurred and the register has been amended accordingly.

Detection of Tuberculosis in Milk Produced in City Dairies.—Bulk samples of milk are taken from each City dairy herd during the year as a check on the clinical examination of the dairy cows and in addition individual samples are taken in suspected cases. 173 samples, of which 20 were infected, were taken as follows:—

				Infected.
Mixed samples	...	...	111	9
Individual samples	...	...	62	11
			173	20
			—	—

The 11 cows found to be giving infected milk were taken under the Tuberculosis Order and on post mortem examination 3 were found to be affected with advanced tuberculosis while the other 8 were affected with tuberculosis but not advanced within the meaning of the Order. 21 other cows, showing clinical evidence of tuberculosis, were also removed from City dairy herds during the year.

EXAMINATION OF MILK COMING INTO THE CITY FROM OUTSIDE SOURCES FOR THE PRESENCE OF TUBERCLE BACILLI.

1,699 samples of mixed milk were taken at various City depots from churns, etc., sent in from outside sources:—

Source.	Bulk Samples.	Result of Exam.		Percentage Infected
		Free.	Infected.	
Cheshire	4	25.0
Derbyshire	10	20.0
Gloucestershire	33	—
Herefordshire	23	—
Leicestershire	9	33.3
Montgomeryshire	20	10.0
Oxfordshire	1	—
Shropshire	179	6.7
Staffordshire	578	7.5
Warwickshire	609	5.4
Worcestershire	215	6.0
		1,681	1,572	109
Pasteurised	18	—
		18	18	—
TOTAL ...		1,699	1,590	109
				6.4

Note.—The 18 samples of pasteurised milk were taken for the purpose of checking the efficient working of the pasteurisation plant at various depots.

Milk and Dairies (Consolidation) Act, 1915:

It is an obligation under Section 4 of the above Act for the County Medical Officer to arrange for the inspection of cattle in dairies in respect of which notice is given that milk supplied therefrom has been found to contain tubercle bacilli.

In connection with the 109 infected samples of mixed milk which had come into the City from outside sources, notification under the Milk and Dairies (Consolidation) Act, 1915, was sent in each case to the Medical Officer of Health of the County in which the cows from which the milk was obtained were kept, and a veterinary inspector from this department attended at the time the inspection of each of the herds was made by the local authority concerned.

The 109 infected bulk samples were taken from milks supplied from 107 farms comprising 3,685 dairy cows, and from two milk collecting depots. The farms were visited and the cows were examined, and further milk samples (mixed and individual) taken from each herd by the local authority concerned.

In 75 cases reports have been received showing that at the 107 farms visited 115 cows were discovered to be affected with tuberculosis and giving milk containing living tubercle bacilli; these cows were subsequently slaughtered.

In 10 cases it has been reported that the animals responsible for the infection in the milk have not been traced, but in 7 of these cases it was ascertained that cows had either been sold out for slaughter or had gone "dry" prior to the visit to the farm by the veterinary inspector, and as a further check "control" samples were taken at City depots which on examination were found to be free from infection, thus proving that the offending cows had been removed from the herd. In the other 3 cases the offending animals were not traced.

In 22 cases where the infected samples were collected towards the end of the year, the investigations have not yet been completed.

With respect to the 18 cases outstanding at 31st December, 1933, 25 cows at 14 farms were taken and dealt with under the Tuberculosis Order. In the other 4 cases it was ascertained that cows had either gone "dry" or been sold out for various reasons for slaughter prior to the visit of the veterinary inspector.

Bulk Milk.—As previously pointed out, until there is some alteration in the procedure to be followed under the Milk and Dairies (Consolidation) Act, 1915, there will always be difficulties in dealing with the eradication of tuberculosis from bulked milk. Under this system the milk from large numbers of farms is sent to collecting depots, where it is mixed in large containers prior to its distribution to other depots and to retailers.

During the year two of the infected samples were taken from milk which, before being sent to Birmingham, had been "bulked" at collecting depots. In one case the milk had come from the Fole Dairy, Staffordshire, to which source we traced infected milk in 1933, the investigations of which then involved 250 farms. The present investigations have involved the taking of 257 samples of milk on arrival at the dairy, from 225 separate farms. 218 herds, totalling 5,660 cows, were examined and 75 cows were reported and slaughtered under the Tuberculosis Order. Of these 41 were found, on post-mortem examination, to be affected with advanced tuberculosis.

In the other case the depot at Wem, Salop, received supplies of milk from 7 farms. Samples of milk were collected at each farm but on examination they all proved negative.

Notifications Received from Outside Local Authorities.—

1.—A report was received from Smethwick to the effect that living tubercle bacilli were found in Grade "A" milk bottled by a Handsworth firm. Samples were taken at the depot from the milk supplied by the two outside senders and in both cases the result of the examination proved negative.

2.—A report was received from Staffordshire that living tubercle bacilli were found in a sample of milk pasteurised by a Birmingham firm. In connection with the testing of the plant six samples of milk were taken for biological testing and on examination these proved to be "free."

3.—Living tubercle bacilli were found in a sample of ordinary loose milk taken on behalf of the Medical Officer of Health for Sutton Coldfield. The milk was alleged to have been supplied by a City dairy. A veterinary examination was made of 25 cows on the premises and three samples of milk were collected, but on examination these proved negative. It was ascertained that since the taking of the infected sample by the Sutton Coldfield Authorities, one cow had been sold for slaughter and another cow had gone "dry" and was slaughtered subsequently.

Comparative Return.—The following table shows the number of samples taken of milk sent in from outside sources during the past ten years and the percentage infected:—

Year.			Samples Taken.	Samples Infected.	Percentage Infected.
1925	...	...	622	46	7.4
1926	...	...	811	71	8.7
1927	...	...	835	60	7.2
1928	...	...	974	91	9.3
1929	...	...	958	64	6.7
1930	...	...	1,699	105	6.2
1931	...	...	1,657	133	8.0
1932	...	...	1,086	97	8.9
1933	...	...	1,694	108	6.4
1934	...	...	1,699	109	6.4

Average for Period 7.5

Summary of Samples of Milk taken during 1934.—

				From Outside Dairies.		From City Dairies.	
				No. Taken	No. Infected	No. Taken	No. Infected
Pasteurised	...	...	...	18	—	—	—
Grade "A"	...	...	...	55	2	26	6
Grade "A" (T.T.)	...	...	...	9	—	—	—
Non-designated	...	...	...	82	2	26	6
			1,617	107	147	14	
		Total	1,699	109	173	20	

GRAND TOTAL ... 1,872.

ERADICATION OF TUBERCULOSIS FROM DAIRY HERDS SUPPLYING MILK TO THE CITY.

Birmingham Corporation Scheme.—Under the Birmingham Corporation Scheme for the eradication of Tuberculosis from herds supplying milk to the City, the necessary veterinary assistance and tuberculin are given free, subject to certain conditions being complied with. The primary object is that the milk supply of Birmingham shall be as free from infection of Tuberculosis as possible.

The double intradermal test has been used for all herds tested by us during the year. For the purposes of this scheme the Corporation send their Veterinary Inspectors to carry out the testing of herds for farmers who desire to be included in the scheme.

Eighteen herds, comprising 814 animals, were continuing in the scheme on the 31st December last. From eleven of these herds "Certified" or "Grade A (Tuberculin Tested)" milk is supplied to the City.

HERDS TESTED DURING 1934.

The testing of herds which come under the Scheme is carried out half-yearly and the following return gives the number of animals tested during the year:—

		Tested.	Passed.	Failed.	Date of entering Scheme.
1	....	376	365	11	October 24th, 1907
2	....	118	110	8	October 3rd, 1908
3	....	69	68	1	September 23rd, 1913
4	....	20	19	1	May 26th, 1928
5	....	52	50	2	November 22nd, 1907
6	....	15	15	—	January 6th, 1908
7	....	205	193	12	October 3rd, 1908
8	....	76	73	3	October 4th, 1924
9	....	77	73	4	September 26th, 1928
10	....	78	74	4	February 7th, 1929
11	....	61	56	5	September 12th, 1913
12	....	101	99	2	November 10th, 1931
13	....	83	80	3	October 1st, 1932
14	....	21	20	1	May 8th, 1932
15	....	173	164	9	November 10th, 1932
16	....	50	40	10	January 1st, 1934
17	....	79	46	33	May 16th, 1934
18	....	29	20	9	January 3rd, 1934
19	....	78	61	17	Discontinued
20	....	71	46	25	Discontinued
21	....	36	10	26	Tested but not admitted to the Scheme.
		1,868	1,682	186	
			90%	10%	

In addition to the testing of the cows in the herds twice a year a certain number of cows were purchased subject to passing the test. These animals were tested at Farmers' and Dealers' premises before being added to the herds and of the 111 so tested 63 passed the test and were admitted to the herds and are included in the figures given above; 48 failed to pass the test.

Cows tested during 1933:—

1,798	1,608	190
89.4%	10.6%	

Note.—During the year four new herds (Nos. 16, 17, 18, and 21) were tested under the Scheme. In the case of No. 21, owing to the high percentage of reactors the owner could not see his way to comply with the conditions of the Scheme. Two herds (Nos. 19 and 20) discontinued the test.

INSPECTION OF SLAUGHTERHOUSES, ETC.

This section of the report deals with the work done in connection with the inspection of meat and other foods at the public abattoir, wholesale markets, and retail shops in the City.

At the present time the meat inspection at the public abattoir is carried out by three veterinary inspectors and three assistant meat inspectors. A fourth veterinary inspector is responsible for the inspection of the bacon factories and central slaughterhouses. The wholesale fruit, vegetable and fish markets are supervised by an inspector and for the purpose of inspecting shops and food premises, the City is divided into six separate districts with an inspector in charge of each.

Public Abattoir.—Inspectors are on duty daily, from 7 a.m. until 5 p.m., and one inspector comes on duty at 12.30 p.m. and remains until all slaughtering in the market is finished, usually about 9 p.m.

The amount of slaughtering in the abattoir varies a great deal, according to the time of the year and the days of the week. As it is impossible for the inspectors to examine every carcase, it is the custom for slaughtermen who detect any abnormality in carcases during the process of dressing, to report the matter to an inspector. This, to a certain extent, assists us and facilitates routine inspection. In addition, veterinary examination is regularly made of all animals in the lairs awaiting slaughter, so that any diseased animal may be isolated and steps taken to prevent the spread of infection to other animals.

Private Slaughterhouses.—At 31st December there were 92 private slaughterhouses in the City area; 49 of these being registered and 43 annually licensed.

Of the 92 slaughterhouses, 27 of them are used for the slaughter of pigs only.

Knackeries.—There are two annually licensed knackeries in the City.

RETURN OF ANIMALS SLAUGHTERED.

During the year the following animals were slaughtered in the public slaughterhouses:—

		Beasts.	Calves.	Sheep and Lambs.	Pigs.	Total
City Meat Market	...	41,602	91,270	316,202	66,010	515,084
Montague Street ...	...	8	74	167	5,449	5,698
		41,610	91,344	316,369	71,459	520,782

Owing to the shortage of lairage accommodation at the abattoir, several firms of wholesale butchers have, during recent years, acquired premises within the vicinity of the City Meat Market, and have had them altered for use as lairs.

The following table shows the number of animals slaughtered in the private slaughterhouses:

District.	Beasts.	Calves.	Sheep.	Pigs.	Total.
Central	—	—	752	208,631	209,383
No. 1	736	165	7,192	1,439	9,532
No. 2	1,364	1,085	10,628	9,878	22,955
No. 3	1,821	843	11,723	2,336	16,723
No. 4	740	603	6,989	1,492	9,824
No. 5	865	405	11,750	1,703	14,723
No. 6	1,484	599	11,904	13,781	27,768
	7,010	3,700	60,938	239,260	310,908

IMPORTED MEAT.

Return showing the approximate amount and percentage of Home Killed and Imported Meat sold in the city during the year:—

	Home Killed.				Total. Tons.
	City Meat Market. Tons.	Private Slaughterhouses. Tons.	Imported. Tons.		
Beef and Veal	11,642	2,370	12,591	....	26,603
Mutton	5,929	1,143	10,684	....	17,756
	17,571	3,513	23,275	....	44,359

	Percentage of total:—		Imported.
	Home Killed.	Imported.	
Beef and Veal	52.7	47.3	
Mutton	39.8	60.2	
	47.5	52.5	

MONTAGUE STREET PIG MARKET.

On the English side of this market 117,926 pigs were passed through, and on the Imported side 18,958 pigs from Ireland passed through. All of these animals were licensed from Montague Street to bacon factories and slaughterhouses. In addition to the animals which passed through Montague Street Market, 11,526 pigs *ex* Ireland were received at various slaughterhouses and bacon factories in the City, as compared with 9,957 pigs *ex* Ireland during 1933.

The Pigs Marketing Scheme, 1933.—This Scheme has for its object the regulating of the marketing of pigs produced in Great Britain and the registration of pig producers. It would appear from the figures given above that this Scheme has had very little effect upon the number of pigs passing through the market.

WHOLESALE FRUIT, VEGETABLE, AND FISH MARKETS.

One food inspector is wholly engaged in the fruit and vegetable markets, fish market, and market hall. In addition this inspector is in charge of the sorting room in Gloucester Street and of the hawkers in the Bull Ring. Damaged fruit and vegetables which pay for sorting, are purchased by hawkers and small shopkeepers, who use the special room at Gloucester Street for sorting such foodstuffs, before offering them for sale.

Owing to the large number of stall-holders and hawkers in the Bull Ring and in the vicinity of the markets during Saturday afternoon and Saturday evenings, an inspector is always on duty to supervise this class of trade and to be available generally.

Shell-fish.—The following summary shows the samples taken and submitted for bacteriological examination of shell-fish offered for sale on the City market:—

Number of Samples.							Origin.		
	Gt. Britain.			Ireland.		Other.			
57 Oysters	28	....	—	29
97 Mussels	92	....	5	—
154						120	....	5	29

Public Health (Shell-fish) Regulations.—As a result of the bacteriological examination of samples taken from shell-fish *ex* Aberdovey, Barmouth, Conway, Liverpool, Malldraeth Bay, Mostyn, Parkgate and Portmadoc, notice was given in each case under the Public Health (Shell-fish) Regulations, 1915, to the local authorities concerned.

These Regulations are to be replaced by new ones which operate from the 1st January, 1935. The revised Regulations are generally similar but are modified in certain respects, to give additional powers to the local authority making representation concerning polluted shell-fish.

Cleansing of Shell-fish Act, 1932.—This Act empowers local authorities, where shell-fish are collected, to provide tanks for the cleansing of shell-fish. Tanks have been erected at Conway, Lympstone and at Brightlingsea.

Sea-Fishing Industry Act, 1933.

Sea-Fishing Industry (Immature Sea-Fish) Orders, 1933 and 1934.

Salmon and Freshwater Fisheries Acts.

Fisheries (Oyster, Crab and Lobster) Act.

No infringement of the provisions of these Acts and Orders came to notice during the year.

REGISTRATION OF PREMISES USED FOR THE MANUFACTURE OF POTTED MEATS, ETC.

Food Preparation Premises and Shops. On 31st December there were 223 food preparation premises on our register as follows:—

Cooked Meats, etc., Manufacturers	...	145
Sausage and Pork Pie Manufacturers	...	76
Jam Manufacturers	...	2
<hr/>		
223		

The following shops in which food is sold were regularly visited:—

Beef and Pork Butchers	...	...	1,148
Grocers	...	...	1,382
Green Grocers	...	...	1,368
Hucksters	...	...	5,045
Fish Friers	...	...	660
Fishmongers	...	...	659
			<hr/>
			10,262

INSPECTIONS.

The following is the number of visits paid by the Inspectors:—

Slaughterhouses	...	...	...	8,992
Food Preparation Premises	...	...	...	8,088
Fish Friers	...	...	...	5,811
Beef and Pork Butchers	...	...	...	32,921
Grocers	...	...	...	5,325
Green Grocers and Fishmongers	...	...	...	22,471
Hucksters	...	...	...	2,961
Ham and Bacon Curers	...	...	...	3,529
Street Hawkers	...	...	...	26,382
Horse Flesh	...	...	...	48
Cold Stores	...	...	...	21,436
				137,964

FISH FRIERS' PREMISES.

Bye-laws for regulating the trade of Fish Friers are in force in the City area, and it is necessary for any person desiring to establish the trade of a Fish Frier to obtain the prior consent, in writing, of the Corporation.

The number of Fish Friers in the City at December 31st was as follows:—

At 31st December, 1933	...	...	668
Discontinued	...	...	26
			642
Established during year	...	...	18
			660
Total			

The bye-laws at present in force for regulating the trade of a fish frier were made under a Declaratory Order of the Ministry of Health, which declared the trade of a fish frier to be "offensive" technically, for the purposes of the Public Health Act, until such time that the Corporation next General Powers Bill shall include a clause, enabling the Council to make bye-laws to deal with this trade without needing to treat it as "offensive" technically.

Provision is being made in the Birmingham Corporation Bill, 1935, for the necessary clause to be included.

BIRMINGHAM CORPORATION BILL.

It is proposed to include clauses in the new Birmingham Corporation Bill relating to the following:

Bye-laws in respect of fried fish shops.—To give power to the Corporation to make bye-laws with respect to the trade or business of a fish frier for the purposes of sub-section (2) of section 51 of the Public Health Acts (Amendment) Act, 1907, notwithstanding that such trade or business may not have been declared to be an offensive trade in pursuance of sub-section (1) of that section.

Further provisions as to shell-fish.—To enable the Corporation to make an order prohibiting the sale for human consumption of suspected shell-fish.

Bye-laws as to food.—To give power to the Corporation to make bye-laws for promoting and securing sanitary and cleanly conditions in the transport or exposure for sale of any article intended to be sold for food.

PROSECUTIONS.

Legal proceedings were taken in five cases under the Public Health Acts in respect of diseased or unfit meat exposed or deposited for sale. In four cases convictions were obtained and fines amounting to £36 imposed. The remaining case was dismissed on the grounds that there was insufficient evidence.

The provisions of Section 32 of the Birmingham Corporation Act, 1914, entitle the person in whose custody or possession the seized meat was, at the time when it was inspected, to attend the proceedings before the Justice of the Peace, at the time the order is being signed by the Justice. This was made known in each of the above cases at the time of seizure.

SUGAR SWEEPINGS.

11 consignments, consisting of 151 bags of sugar sweepings, were forwarded to Birmingham from the Port of London. These were controlled by us until they had been submitted to a special refining and filtration process, when they were examined and passed as fit for human consumption.

FOOD KITCHENS.

In February a request was received from the Education Department for the inspection of the fish supplied to twenty-four School kitchens, at which the Education Committee supply meals to necessitous school children. For this purpose the district inspectors call at frequent intervals.

MEAT AND OTHER FOODS CERTIFIED AS UNFIT FOR HUMAN CONSUMPTION.

No. of Surrenders.	Class of Foodstuffs.	Weight.			
		Tons.	Cwts.	Qrs.	Lbs.
10,980	Meat	475	11	0	0
892	Fish	98	12	2	8
1,173	Poultry, Game, etc	26	10	3	22
871	Fruit and Vegetables	359	10	0	20
110	Miscellaneous	3	9	3	8
<hr/> 14,026		<hr/> 963	<hr/> 14	<hr/> 2	<hr/> 2

The unfit meat is all sent to the Dead Meat House at the Public Abattoir, and from there it is removed by the Salvage Department, to the Montague Street depot. The fish is collected direct from the Fish Market by the Salvage Department. The condemned fruit and vegetables, poultry, etc., are, in most cases removed by the wholesale firms to the Dead Meat House, for collection by the Salvage Department, but exceptionally large consignments of condemned foodstuffs are sent direct to Montague Street.

These foodstuffs, which are unfit for human consumption, are converted by the Salvage Department into feeding meal, oils, fats and patent manure, etc.

Residual Value.—Compensation at the rate of 3/- per cwt. is paid to the owners of carcases and parts of carcases surrendered as unfit for human food, and also in respect of the carcases of pigs which died during transit.

During the year £1,146 12s. 0d. was paid in respect of the following carcases, etc. :—

		Tons.	Cwts.	Qrs.
Beef	...	170	17	1
Veal	...	9	16	2
Mutton	...	33	3	0
Pork	...	168	7	1
		<hr/> 382	<hr/> 4	<hr/> 0

DISEASES OF ANIMALS ACTS.

As the Chief Veterinary Officer is appointed Chief Inspector of the Diseases of Animals, the whole of the work under these Acts, including the issuing of licences, is dealt with by the Veterinary Department. All sales of horses, cattle, sheep and pigs are controlled under these Acts by the Department. During the year Montague Street Market has been visited twice daily and in addition to visiting the regular weekly sales of horses at Cave's Repository, Moseley Street, the inspectors attended the following sales of cattle, sheep and pigs:—

Cave's Repository, Moseley Street:—

January 24—Sale of shorthorn cattle.
May 9—Sale of pigs and cattle.
September 26—Sale of pigs and cattle.

Bingley Hall:—

Nov. 6 and 7—Sale of shorthorn cattle.
December 1—6—Show and sale of fat cattle,
sheep, pigs, etc.

The following is a summary of the visits paid by inspectors:—

Railway Sidings	...	...	...	1,964
Cattle Yards	...	...	...	2,488
Markets	...	...	...	490
Pig Keepers Premises	...	...	...	1,143
Knacker Yards	...	...	...	109
Miscellaneous	...	...	...	48
				<hr/> 6,242

ANTHRAX.

During the year eight suspected cases of Anthrax were reported but on microscopic examination of the blood of the animals in each case the result was found to be negative.

BOVINE TUBERCULOSIS.

Tuberculosis Order, 1925.—During the year 32 cases of tuberculosis in cattle, within the meaning of the above Order, were dealt with, all the animals being slaughtered and compensation amounting to £145 3s. 1d. paid to the owners. Three-fourths of this compensation is recoverable from the Ministry of Agriculture and Fisheries. Two other suspected cases of tuberculosis in cattle within the meaning of the Order were reported to us, but on examination were found to be suffering from other diseases and were not dealt with.

VI. PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.

GENERAL.

The mortality figures for 1934 are compared with the decennial averages in the statement below.

Disease.		Deaths in 1934.	Average 1924-1933.	Above or below the average.
Enteric Fever	...	6	4	+ 2
Smallpox	...	0	0	—
Measles	...	23	100	— 77
Scarlet Fever	...	15	13	+ 2
Whooping Cough	...	115	125	— 10
Diphtheria	...	84	75	+ 9
Pulmonary Tuberculosis	...	732	892	— 160
Other Forms of Tuberculosis	...	82	130	— 48
Influenza	...	188	381	— 193

The prevalence of the notifiable diseases is shown in the next table:—

Disease.		Cases in 1934.	Average 1924-1933.	Above or below the average.
Enteric Fever	...	40	43	— 3
Smallpox	...	0	6	— 6
Scarlet Fever	...	3297	2156	+ 1141
Diphtheria	...	1019	1420	— 401
Erysipelas	...	693	469	+ 224
Puerperal Fever	...	113	105	+ 8
Puerperal Pyrexia	...	216	Only notifiable since 1926.	
Ophthalmia Neonatorum	...	558	432	+ 126
Pulmonary Tuberculosis	...	1187	1382	— 195
Other Forms of Tuberculosis	...	211	272	— 61
Acute Primary or Influenzal Pneumonia	...	2373	2632	— 259
Cerebro-Spinal Fever	...	24	16	+ 8
Acute Poliomyelitis	...	5	15	— 10
Polioencephalitis	...	0	2	— 2
Encephalitis Lethargica	...	12	66	— 54
Malaria	...	4	5	— 1
Dysentery	...	15	9	+ 6

The scarlet fever cases exceeded the average by 1,141 but on the other hand the diphtheria cases were 401 below the average number. As indicated by the number of deaths in relation to this incidence scarlet fever was mild and diphtheria relatively severe in type.

The action taken with regard to puerperal fever, puerperal pyrexia and ophthalmia neonatorum is recorded in the Maternity and Child Welfare section of this Report. The increase in notifications of ophthalmia neonatorum is significant only of greater freedom in notifying many cases which are certainly not severe and are not gonococcal in origin.

The following cases were reported through the Head Teachers of Elementary Schools and the Attendance Officers:—

		1934.	1933.	1932
Measles	...	4,967	9,011	5,033
German Measles	...	985	210	739
Whooping Cough	...	5,896	2,143	5,248
Chicken Pox	...	5,437	5,181	6,051
Mumps	...	861	6,763	4,745

The cases were all visited by the Health Visitors and steps were taken to exclude contacts from school where necessary.

ENTERIC FEVER.

During the year there were 54 cases notified as Enteric Fever, but further investigation revealed the fact that 14 of these were not, in fact, suffering from the disease. The 40 true cases are tabulated as follows:—

Typhoid Fever	...	...	...	20
Para-Typhoid A.	...	...	...	2
Para-Typhoid B	...	...	...	18
Para-Typhoid C	...	...	...	—

There were 5 deaths from Typhoid Fever and 1 death from Para-Typhoid B.

Of the 20 cases of typhoid fever, three were due to contaminated mussels sent into the City from a southern coastal town. The water from a contaminated stream running in part through the outskirts of the City and in part through an adjoining local authority's area was responsible for 12 cases. This water was used at certain points popular with picnic parties. In conjunction with the authority concerned appropriate action was taken with a view to preventing a recurrence. Three cases were secondary and were contracted prior to the illness in the original case being diagnosed. The remaining two cases were of a sporadic nature.

Five deaths occurred in this group of typhoid fever, two being due to mussels, two from water, and one sporadic.

The two cases of paratyphoid A. were contracted abroad, the illness commencing after their return to this City.

Of the 18 cases of paratyphoid B., 11 were of a sporadic nature, 5 were secondary, while two were contracted outside the City. The one case of death was a woman aged 64 years who gave a history of illness commencing some four months previously.

ENTERIC FEVER.

	Number of Cases.	Case rate per 1,000	Number of deaths registered	Death rate per 1,000
1901-5 (Average)	544	.70	91	.12
1906-10	242	.30	51	.06
1911-15	90	.11	22	.03
1916-20	22	.02	5	.01
1921-25	30	.03	4	.00
1926-30	41	.04	5	.00
1925	31	.03	4	.00
1926	52	.05	3	.00
1927	40	.04	4	.00
1928	20	.02	3	.00
1929	31	.03	4	.00
1930	62	.06	9	.01
1931	54	.05	1	.00
1932	58	.06	2	.00
1933	30	.03	1	.00
1934	40	.04	6	.01

UNDULANT FEVER.

No cases of this disease were notified.

GLANDULAR FEVER.

No cases of this disease came to the notice of the Department during the year 1934.

SMALLPOX.

No cases of smallpox occurred in the City during the year. A few persons living in the City were contacts to known cases of smallpox in other areas. Accordingly they were visited, vaccination offered, and daily supervision of each was carried out for a period covering the interval of incubation of the disease.

VACCINATION.

Since April 1st, 1930, when the Local Government Act, 1929, came into force, the administration of the Vaccination Acts has been carried out by the Public Health Committee.

Below are tabulated statistics relating to this work for the current year, together with similar figures relating to each year since 1928. It will be seen that the percentage of successful vaccinations has fallen slightly, while the slight increase of conscientious objectors experienced during recent years continued in 1934. Coupled with this latter fact, however, it is to be remembered that only four cases of smallpox have occurred in the City since 1928; so that there has been no strong incentive to have vaccination performed where parents are otherwise hesitant.

VACCINATION.

	1934	1933	1932	1931	1930	1929	1928
Births returned	15,703	17,063	17,832	17,866	17,590	17,786	17,954
Conscientious objectors, per cent.	29.5	28.0	28.0	26.8	25.2	20.4	18.7
Died unvaccinated	823	830	958	841	900	939	1,020
Successful Vaccinations (per cent. of survivors)	53.1	55.4	54.8	54.3	53.7	62.0	65.0
Insusceptible	0.5	0.9	1.0	1.1	1.2	0.5	0.7
Postponed by Medical Certificate	0.5	0.4	0.4	0.5	0.6	0.7	0.4
Removed	4.1	3.8	3.5	4.5	5.1	4.1	3.9
Lost sight of	2.6	2.6	2.7	2.3	2.4	2.5	2.6
Still under notice	8.0	7.6	7.9	9.2	10.5	9.1	7.7

MEASLES.

All cases notified to the Department through the schools have been systematically visited by health visitors, and advice as to nursing and general hygiene given where required.

During the year 209 cases were admitted to Little Bromwich Hospital for treatment.

Since the third quarter of 1930 immunisation methods, even though on a restricted scale, have been applied to the attenuation of infection or the prevention of the disease. It is known that the blood serum of a person who has previously suffered from measles, when given intramuscularly to contacts in suitable amount and at a suitable stage in the incubation period, will either prevent the disease occurring, or so modify it as to make the attack a mild one.

It has happily been made possible to augment considerably the supply of serum by the very generous co-operation of the Birmingham Blood Transfusion Service, whose members have kindly come forward to act as donors.

This serum has been given to selected children under five years of age who had been in contact with measles and who were either also acutely ill with some other disease or were in a state of chronic ill-health. In most of the cases the aim was, not to prevent infection, but to attenuate it, thus obtaining life-long immunity without grave disturbance of health. Apart from cases referred by health visitors and general practitioners for such immunisation, some of the voluntary hospitals requested help with a view of preventing further cases occurring in their wards where there were

children suffering from acute illnesses. Immunisation has been carried out on 346 children during the year, the results obtained being very satisfactory. The inoculations were for prevention in 207 cases and for attenuation in 139.

There were 23 deaths registered from the disease during the year.

The number of cases in past years, together with the mortality rate, are set out in the following table.

	Number of Cases*	Number of Deaths.	Death rate per 1,000 of population.
1901-5 (Average)	?	279	.36
1906-10	?	294	.36
1911-15	6,027 (1912-1915)	419	.48
1916-20	10,773	168	.18
1921-25	6,831	121	.13
1926-30	7,464	100	.10
1925	11,636	109	.11
1926	6,980	78	.08
1927	9,032	129	.13
1928	5,030	41	.04
1929	9,764	196	.20
1930	6,512	58	.06
1931	9,745	177	.18
1932	5,033	52	.05
1933	9,011	77	.08
1934	4,967	23	.02

*Partial notification only through schools, except for the years 1916-19.

From the following table it is evident that the death-rate from measles in the Central Wards is far in excess of that for the Middle or the Outer Ring of Wards, owing to the course of the disease and the liability to contract complications being directly influenced by overcrowding and insanitary conditions.

Measles death-rate per 1,000.

	1932.	1933.	1934.
Central Wards	.16	.14	.05
Middle Ring	.03	.07	.02
Outer Ring	.02	.05	.01

The age-distribution of the fatal cases of measles was as follows:—

	1932.	1933.	1934.
Under 1 year	9	18	4
1 and under 2 years	25	37	10
2 and under 5 years	15	16	4
5 years and over	3	6	5
	52	77	23

SCARLET FEVER.

The total number of notifications received during the year for this disease was 3,449. Of these 2,219 were treated in hospital and the remainder, 1,230, were treated at home.

After revision of diagnosis in those cases admitted to hospital, the total number of true cases of scarlet fever treated in hospital was 2,075 and those at home 1,222. Several cases admitted as diphtheria proved to be suffering from scarlet fever.

The death-rate of .01 per 1,000 for 1934 is about the same as the average death-rate for this disease for the past 10 years.

SCARLET FEVER CASES AND DEATHS.

	Number of Cases.	Case-rate per 1,000 population	Number of Deaths	Death-rate per 1,000 population	Case mortality per cent.
1901-05 (Average)	4,038	5.21	172	.22	4.26
1906-10	3,956	4.83	116	.14	2.98
1911-15	5,456	6.29	125	.14	2.29
1916-20	2,472	2.73	41	.04	1.66
1921-25	2,652	2.84	32	.03	1.21
1926-30	1,910	1.96	9	.01	0.47
1925	1,852	1.95	22	.02	1.19
1926	1,709	1.78	8	.01	0.47
1927	1,510	1.56	8	.01	0.53
1928	1,521	1.56	5	.01	0.33
1929	2,413	2.46	9	.01	0.37
1930	2,397	2.44	15	.02	0.63
1931	2,761	2.73	10	.01	0.36
1932	2,544	2.50	12	.01	0.47
1933	2,639	2.58	20	.02	0.76
1934	3,297	3.21	15	.01	0.45

The report on cases treated at the Infectious Diseases Hospital will be found on page 62.

WHOOPING COUGH.

Whooping cough caused 115 deaths during 1934. The following table gives the number of cases and deaths in previous years, and it will be seen that both the number of cases and the death-rate were at a higher level than in recent years.

	Number of Cases*	Number of Deaths	Death-rate per 1,000 Population.
1901-5 (Average)	?	316	.41
1906-10	?	294	.36
1911-15	3,264 (1912-1915)	213	.25
1916-20	3,592	206	.23
1921-25	4,463	180	.19
1926-30	4,443	119	.12
1925	6,138	222	.23
1926	4,895	128	.13
1927	2,496	69	.07
1928	6,463	163	.17
1929	3,347	123	.13
1930	5,012	110	.11
1931	3,990	89	.09
1932	5,248	131	.13
1933	2,143	35	.03
1934	5,896	115	.11

*Partial Notification through Schools.

The ages at death were as follows:—

		1930.	1931.	1932.	1933.	1934.
Under 1 year	...	60	37	60	14	52
1 and under 2 years	...	27	35	41	13	37
2 and under 5 years	...	17	13	23	6	24
Over 5 years	...	6	4	7	2	2
	Totals	110	89	131	35	115

Thus 89 out of the 115 deaths occurred among children under two years of age.

Every case of whooping cough reported to the Department is visited, and advice given on hygienic measures. Where necessary the services of a district nurse are supplied under an arrangement made with the District Nursing Association.

DIPHTHERIA.

The total number of cases notified was 1,566. Of these 1,486 were removed to the City Fever Hospital, the remainder (80) being nursed at home.

Revision of diagnosis took place in 553 of the hospital cases and 5 home cases, while 11 cases sent in as scarlet fever proved to be suffering from diphtheria.

After correction, the net number of cases of definite diphtheria belonging to the City was 1,019, of whom 944 were treated in hospital and 75 at home.

In addition, there were 65 cases treated in City Hospital on behalf of other authorities.

DIPHTHERIA CASES AND DEATHS.

	Cases of Clinical Diphtheria.	Case-rate per 1,000 of Population.	Deaths.	Death-rate per 1,000 of Population.	Case Mortality per cent.
1901-05 (Average)	991	1.28	159	.20	16.0
1906-10	1,210	1.48	149	.18	12.3
1911-15	1,125	1.30	155	.18	13.8
1916-20	1,065	1.19	143	.16	13.4
1921-25	1,651	1.76	109	.12	6.6
1926-30	1,642	1.69	84	.09	5.1
1925	1,896	2.00	95	.10	5.0
1926	1,804	1.88	116	.12	6.4
1927	1,543	1.60	61	.06	4.0
1928	1,552	1.59	70	.07	4.5
1929	1,611	1.64	86	.09	5.3
1930	1,701	1.73	88	.09	5.2
1931	1,171	1.16	62	.06	5.3
1932	620	0.61	35	.03	5.6
1933	417	0.41	33	.03	7.9
1934	1,019	0.99	84	.08	8.2

The distribution over the City is indicated in the table below. From this it will be seen that the cases were more numerous in the Central Wards than in the Middle and Outer Ring.

Central Wards	St. Paul's	1.87	Average 1.39
	St. Mary's	...	...	...	1.30
	Duddeston and Nechells	...	...	...	1.80
	St. Bartholomew's	...	...	...	0.79
	St. Martin's and Deritend	...	...	...	1.17
	Market Hall	...	...	...	2.09
	Ladywood	...	...	...	1.21
Middle Ring	Lozells	0.84	Average 0.66
	Aston	...	...	...	1.04
	Washwood Heath	...	...	...	0.67
	Saltley	...	...	...	0.44
	Small Heath	...	...	...	0.45
	Sparkbrook	...	...	...	0.77
	Balsall Heath	...	...	...	0.47
	Edgbaston	...	...	...	0.47
	Rotton Park	...	...	...	0.99
	All Saints'	0.48	

Outer Ring	Soho	0.97	Average 0.79
	Sandwell	...	...	...	0.38
	Handsworth	...	...	...	0.48
	Perry Barr	...	...	...	1.08
	Erdington North	...	...	...	1.24
	Erdington South	...	...	...	0.58
	Yardley	...	...	...	0.75
	Acocks Green	...	...	...	1.17
	Sparkhill	...	...	...	0.77
	Moseley and King's Heath	...	...	...	0.33
	Selly Oak	...	...	...	1.11
	King's Norton	...	...	...	0.30
	Northfield	...	...	...	1.45
	Harborne	...	...	...	0.51
Whole City		0.99	

A report on the cases treated at the Infectious Diseases Hospital will be found on page 62.

DIPHTHERIA ANTI-TOXIN.

Diphtheria anti-toxin is distributed free of charge to medical practitioners for the treatment of their patients and can be obtained from the Public Health Department, the Bacteriological Laboratory and 18 Police Stations.

IMMUNISATION AGAINST DIPHTHERIA.

The work of immunisation continues to make good progress. A total of 9,498 children were immunised during the year, 9,084 undergoing the full course of immunisation and 464 only a part of such course. The work is carried out by one medical officer who devotes five half-days per week to diphtheria immunisation, the remaining sessions being allotted to Maternity and Child Welfare work.

From the table below it will be seen that the work of immunisation has been carried out during the year at 112 schools, 30 infant welfare centres and 7 residential institutions, while one clinic per week is held at the Council House.

				Number of Immunisation Centres.	CHILDREN IMMUNISED.	
Council House	....	....	....	1	442	38
Infant Welfare Centres	....	....	....	30	2541	222
Day Schools	....	....	....	112	5822	203
Residential Institutions and Residential Schools	....	....	....	7	206	—
Hospitals	....	....	....	1	23	1
Totals	....	....	....	151	9034	464

Arrangements were made during 1930 for medical practitioners to be supplied on request with immunisation material for preventing diphtheria. Advantage was taken of this in 423 cases during 1934. At Little Bromwich Hospital a further total of 93 cases were fully immunised. These are additional to those shown in foregoing table.

Since the commencement of the Scheme in 1925, it is of some interest to note that adjustments of technical or of administrative procedure have enabled the numbers immunised to be increased ten-fold although the staff and the sessions devoted to the work have remained unaltered. The total number of immunised children or adolescents in the City is now 65,000.

DYSENTERY.

Seventeen cases of bacillary dysentery were notified during the year. In 15 cases diagnosis was confirmed by bacteriological examination. Eleven cases were due to infection with Flexner's bacillus and four were due to B. Sonne. The cases had no relation to each other, except that two cases occurred in one home. There were no deaths.

FOOD POISONING.

No cases of food poisoning came to the notice of this Department during 1934.

ACUTE ANTERIOR POLIOMYELITIS.

Five cases of this disease were notified, no cases proving fatal. A review of the five cases some six months after the onset showed that three had completely recovered while improvement was shown in the other two cases. Treatment is being continued in these two cases.

POLIOMYELITIS.

Year.	Cases notified.	Died.	Complete recovery.	Some paralysis.
1917	11	2	6	3
1918	4	—	2	2
1919	14	1	6	7
1920	1	—	—	—
1921	11	4	1	6
1922	6	—	1	5
1923	33	3	1	29
1924	39	5	5	29
1925	11	3	5	3
1926	38	3	3	32
1927	15	1	6	8*
1928	6	1	1	4
1929	6	—	1	5
1930	9	1	3	5
1931	3	—	1	2
1932	17	6	2	9
1933	10	3	1	6
1934	5	—	3	2

* One died later of intercurrent disease.

POLIO-ENCEPHALITIS.

No cases of this disease were notified during the year.

ENCEPHALITIS LETHARGICA.

During the year 12 true cases of this disease came to light in the City, 9 proving fatal. The dates of onset were as follows:—

1920	.....	1
1922	.....	1
1923	.....	1
1925	.....	1
1931	.....	1
1933	.....	1
1934	.....	5
?	.....	1

The cases and deaths in previous years have been as follows :—

Year.	Cases.	Deaths.
1919	11	5
1920	18	7
1921	25	8
1922	12	4
1923	29	12
1924	282	44
1925	92	32
1926	89	36
1927	53	32
1928	41	22
1929	27	20
1930	10	7
1931	18	12
1932	23	19
1933	25	21
1934	12	9

The following table shows the age distribution of the 12 cases in which the diagnosis of encephalitis lethargica has been confirmed :—

Age distribution.	Cases.
10 — 14 years	1
20 — 24 "	2
25 — 34 "	2
35 — 44 "	2
45 — 54 "	3
55 — 65 "	2

CEREBRO-SPINAL FEVER.

Twenty-eight cases were notified as cerebro-spinal meningitis during the year. Of these, 24 were confirmed bacteriologically. In four cases the diagnosis was afterwards revised. Of the 24 actual cases 20 succumbed to the attack, giving a case mortality rate of 83 per cent.

Age distribution.	Cases.
Under 1 year	14
2 — 4 years	1
5 — 9 "	2
15 — 19 "	1
20 — 24 "	1
25 — 34 "	4
55 — 64 "	1

The cases and deaths in previous years have been as follows :—

Year.	Cases notified.	Deaths.
1920	25	18
1921	9	7
1922	18	16
1923	4	2
1924	11	8
1925	7	6
1926	10	9
1927	12	10
1928	12	9
1929	15	15
1930	14	14
1931	25	21
1932	31	22
1933	26	20
1934	24	20

REPORT ON THE CITY INFECTIOUS DISEASES HOSPITALS
FOR THE YEAR, 1934.

(By Dr. JOHN McGARRITY, Medical Superintendent).

PREFACE.

During the year, 4,506 patients were admitted to the wards compared with 3,595 during 1933, and 3,996 during 1932.

The following tables give the numbers of cases of the most important infectious diseases and miscellaneous cases notified during the year and admitted to the hospital, and also the numbers who were discharged or died, as well as the numbers remaining in hospital at the end of the year. The figures in these tables have not been corrected as regards their true diagnosis. The revised diagnosis will be found under the report of the different diseases later in the report.

It will be noted that 911 more patients were admitted than in the previous year, mainly due to a marked increase in diphtheria cases. The notified number of diphtheria cases rose from 788 during 1933 to 1,551 during 1934. Of these 1,551 notified cases it will be seen, under the heading of diphtheria, that 966 were true cases of the disease. Not only was that an increase in numbers, but also in severity, probably due to some extent to a "gravis" infection, but mainly due, as far as we were able to ascertain, to the "intermediate" type of organism. The ever pressing want has been for isolation accommodation, such as can be provided in cubicles and until the proposed cubicles are provided the hospital will have difficulty in dealing with cases which must be isolated from other patients.

The Taplow wards at Witton Hospital, which had been opened in November, 1933, for the reception of cases of scarlet fever, continued open until the end of August, 1934. They were only closed a month, when they had to be opened again and remained open until the end of the year.

The new wards will undoubtedly relieve the situation, but the urgent need is for cubicles.

STATISTICS.

(a) DIPHTHERIA. (Uncorrected for diagnosis).

	Little Bromwich.	Witton.	Total.
In hospital on December 31st, 1933	154	—	154
Admitted during 1934	1,551	—	1,551
Transfers during 1934	—	2	2
Discharged during 1934	1,324	2	1,326
Transfers during 1934	2	—	2
Died during 1934	89	—	89
Remaining on December 31st, 1934	290	—	290

(b) SCARLET FEVER. (Uncorrected for diagnosis).

	Little Bromwich.	Witton.	Total.
In hospital on December 31st, 1933	245	47	292
Admitted during 1934	2,266	—	2,266
Transfers during 1934	17	452	469
Discharged during 1934	1,915	449	2,364
Transfers during 1934	452	17	469
Died during 1934	15	—	15
Remaining on December 31st, 1934	146	33	179

(c) MISCELLANEOUS. (Uncorrected for diagnosis).

	Little Bromwich.	Witton.	Total.
In hospital on December 31st, 1933	51	—	51
Admitted during 1934	668	—	668
Discharged during 1934	633	—	633
Died during 1934	70	—	70
Remaining on December 31st, 1934	16	—	16

(d) SMALLPOX.

Observation Cases.
Admitted to Witton.

In hospital on December 31st, 1933	...	...	...	...	...	—
Admitted during 1934	...	...	...	...	...	4
Discharged during 1934	...	...	...	...	...	4
Remaining on December 31st, 1934	...	...	...	...	...	—

(c) MISCELLANEOUS (Uncorrected for diagnosis).

Anthrax	...	...	...	...	1	
Chickenpox	...	...	...	...	28	
Dysentery	...	...	...	...	18	
Enteric Fever	...	...	...	...	27	
Erysipelas	...	...	...	...	148	
Measles	...	...	...	...	199	
Meningitis	...	...	...	...	6	
Miscellaneous observations	...	...	...	...	2	
Mumps	...	...	...	...	10	
Pemphigus	...	...	...	...	1	
Pneumonia	...	...	...	...	1	
Rubella	...	...	...	...	10	
Vincent's Angina	...	...	...	...	1	
Whooping Cough	...	...	...	...	216	
				Total	668	

SCARLET FEVER.

There were admitted to the wards as suffering from scarlet fever 2,283 patients; of these, 190 were finally diagnosed as suffering from other complaints, as follows:—

Revised diagnosis of 190 cases notified as scarlet fever.

No evidence of scarlet fever	...	...	53	
Erythema	...	...	27	
Tonsillitis	...	...	30	
Measles	...	...	13	
Rubella	...	...	34	
Diphtheria (including 2 carriers)	...	...	8	
Chickenpox	...	...	5	
Bronchitis	...	...	3	
Enteritis	...	...	2	
Paratyphoid B.	...	...	1	
Miscellaneous	...	...	14	
		Total	190	

The miscellaneous group consists of one case of each of otorrhoea, influenza, unresolved pneumonia, endocarditis and chorea, pharyngitis, whooping cough and urticaria, streptococcal carrier, impetigo, measles and whooping cough, sub-acute rheumatism, scabies, broncho-pneumonia, dermatitis, and acute rheumatism.

Two of the cases of revised diagnosis died—one with broncho-pneumonia, and the other, a "no evidence of scarlet fever," was moribund on admission.

Actually, 2,133 true cases of scarlet fever were treated in the wards, of whom 35 were notified as diphtheria and 5 as suffering from other infectious diseases; 50 had concurrent infections, as follows:—

Scarlet fever and concurrent whooping cough	...	...	16	
Scarlet fever and concurrent measles	...	...	10	
Scarlet fever and concurrent chickenpox	...	...	6	
Scarlet fever and concurrent diphtheria	...	...	15	
Scarlet fever and concurrent erysipelas	...	...	2	
Scarlet fever and concurrent mumps	...	...	1	
		Total	50	

The type of scarlet fever was, on the whole, mild or simple in type but there were—

Septic cases	...	...	...	19
Sub-septic cases	...	...	...	5
Toxic cases	...	...	...	7
Haemorrhagic cases	...	...	...	1
			Total	32
				—

The number of deaths attributed to scarlet fever was 15, giving a hospital mortality of 0.70 per cent.

Details of the fatal cases were as follows:—

	Age in years.	Cause of Death.
1.	3	Septic scarlet fever ; operation, suppurative cervical adenitis.
2.	2½	Simple scarlet fever ; broncho-pneumonia.
3.	8	Simple scarlet fever ; streptococcal meningitis.
4.	2	Toxic scarlet fever ; lobar pneumonia.
5.	1½	Septic scarlet fever ; otitis-mastoid operation.
6.	2½	Septic scarlet fever ; broncho-pneumonia ; diphtheria.
7.	1	Simple scarlet fever ; otitis ; broncho-pneumonia.
8.	30	Simple scarlet fever ; epilepsy—status epilepticus ; broncho-pneumonia.
9.	8 months.	Simple scarlet fever ; marasmus ; mastoidectomy.
10.	1½	Toxic scarlet fever ; lobar pneumonia.
11.	7 months	Simple scarlet fever ; erysipelas ; pneumonia.
12.	1½	Septic scarlet fever ; erysipelas ; lobar pneumonia.
13.	6	Simple scarlet fever ; mastoidectomy ; septicaemia.
14.	3½	Septic scarlet fever ; lobar pneumonia.
15.	5½	Septic scarlet fever ; meningitis.

The principal complications are noted below in two groups—(1) serum treated and (2) non-serum treated.

Principal complications.	Serum treated 1,129				Non-serum treated 1,004			
	Recovered cases. Nos.		Fatal cases. Nos.		Recovered cases. Nos.		Fatal cases. Nos.	
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
Arthritis	11	0.97	—	—	12	1.19	—	—
Nephritis	5	0.44	—	—	10	0.99	—	—
Otitis media	120	10.63	5	0.44	98	9.76	1	0.09
Late albuminuria	17	1.51	—	—	12	1.19	—	—
Adenitis	—	—	1	0.09	—	—	1	0.09
Late adenitis	130	11.51	—	—	103	10.26	—	—
Tonsillitis	22	1.95	—	—	29	2.89	—	—
Relapse	40	3.54	—	—	24	2.39	—	—
Rhinitis (including diphtheritic rhinitis)	59	5.23	—	—	34	3.38	—	—
Diphtheria	13	1.16	—	—	8	0.79	—	—
Mastoid	8	0.71	2	0.17	9	0.89	1	0.09
Endocarditis	7	0.62	—	—	6	0.59	—	—
Lobar pneumonia	2	0.17	4	0.35	3	0.29	—	—
Broncho-pneumonia	—	—	3	0.27	—	—	2	0.17
Septic meningitis (streptococcal)	1	0.09	2	0.17	—	—	1	0.09
Bronchitis	8	0.71	—	—	1	0.09	—	—
Conjunctivitis	8	0.71	—	—	1	0.09	—	—
Erysipelas	2	0.17	2	0.17	—	—	—	—
Totals	453		19		350		6	

Those patients who did not receive serum were all, on admission, apparently mild cases and serum treatment did not seem indicated.

Table showing age and sex of scarlet fever patients.

Age group	0—5	5—10	10—15	15—25	25—45	Over 45	Totals.
RECOVERED.							
Males	297	406	154	70	31	1	959
Females	290	459	243	118	48	1	1159
DIED.							
Males	2	1	—	—	1	—	4
Females	9	2	—	—	—	—	11
TOTALS	598	868	397	188	80	2	2133

Hospital mortality 0.70 per cent.

DIPHTHERIA.

1,551 patients were admitted to the wards with a notified diagnosis of diphtheria. Of these, 585 required revision of diagnosis, and 30 were found to be suffering from diphtheria concurrently with another disease.

Revised diagnosis of 585 patients notified as diphtheria:—

Scarlet fever	...	...	...	...	35
Measles	...	...	...	...	8
Pneumonia	...	...	...	...	6
Chickenpox	...	...	...	...	2
Enteric fever	...	...	...	...	1
Enteritis	...	...	...	...	3
Erysipelas	...	...	...	...	3
Whooping cough	...	...	...	...	2
Rubella	...	...	...	...	1
Vincent's Angina	...	...	...	...	1
Syphilitic pharyngitis	...	...	...	...	1
Scabies	...	...	...	...	1
Asthma	...	...	...	...	2
Marasmus	...	...	...	...	1
Thrush	...	...	...	...	1
Pharyngitis	...	...	...	...	1
Stomatitis	...	...	...	...	2
Acute rheumatic carditis	...	...	...	...	2
Retropharyngeal abscess	...	...	...	...	5
Bronchitis	...	...	...	...	5
Common cold	...	...	...	...	5
Otitis media	...	...	...	...	7
No evidence of disease	...	...	...	...	16
Simple laryngitis	...	...	...	...	17
Quinsy	...	...	...	...	17
Rhinitis	...	...	...	...	21
Carrier of virulent diphtheria bacilli	...	...	...	...	51
Tonsillitis	...	...	...	...	368

Total 585 = 37.71 per cent.

Concurrent diphtheria and scarlet fever	...	16
Concurrent diphtheria and whooping cough	...	10
Concurrent diphtheria and chickenpox	...	3
Concurrent diphtheria and measles	...	1
Total	30	

Table showing types of diphtheria and mortality.

Type.	Number.	Died.	Mortality.
Faucial	605	14	2.31%
Nasal	137	2	1.46%
Faucial and nasal	157	52	33.12%
Faucial and laryngeal	29	4	13.78%
Faucial, nasal and laryngeal	6	3	50.0%
Laryngeal	33	3	9.1%
Wound	1	—	—
Nasal and laryngeal	1	—	—
Totals	969	78	8.04%

This table includes 6 patients admitted with a notified diagnosis of scarlet fever.

One of the cases classified as having died of nasal diphtheria was admitted on the 14th day of disease; the other died of acute rheumatic carditis, mild nasal diphtheria being contributory only.

22 patients died within 48 hours of admission to hospital. Of these, 18 died within 24 hours of entering hospital. When these 22 patients are omitted, the mortality is reduced to 5.9 per cent. Altogether, 78 patients died, representing a hospital mortality of 8.04 per cent., as compared with 6.72 per cent. last year; 5.7 per cent. during 1932 and 5.4 per cent. during 1931, so that the case-mortality has been steadily rising, in spite of the fact that the lowest therapeutic dose has been 8,000 units and the highest, approximately 400,00 units, of which the bulk has been by the intravenous route.

Table showing case-mortality in diphtheria according to the day of disease on which serum was given.

Day of disease on which serum was given.	Recovered.	Died.	Mortality Per cent.
1st	48	—	—
2nd	185	12	6.09
3rd	148	21	12.43
4th	150	12	7.41
5th	92	15	14.02
6th day and later	225	18	7.41
Prophylactic dose later than 5th day	29	—	—
No serum	14	—	—
Totals	891	78	8.04

The feature of this table is the very large number of cases admitted too late. Many of those admitted, presumably in the 2nd or 3rd day of disease, seemed to have been ill longer, probably 4 or 5 days.

Analysis of causes of death in the 78 patients in which diphtheria was either the cause of death or a contributory cause.

Post-diphtheritic paralysis in

		Patients who recovered.	Fatal cases.
Palatal	...	177	10
Strabismus	...	21	2
Ciliary	...	9	1
Facial	...	12	2
Pharyngeal	...	15	6
Ptosis	...	4	—
Lower limbs	...	29	—
Neck	...	21	3
Diaphragm	...	3	7
	Totals	<u>291</u>	<u>31</u>

The 291 paralyses tabulated above occurred in 185 patients, who all recovered, giving a paralysis rate of 20.7 per cent., as compared with 20.5 per cent. in 1933 and 17.2 per cent. in 1932.

The 31 paralyses occurred in 11 fatal cases.

LARYNGEAL DIPHTHERIA.

In all, 69 patients notified as diphtheria showed a laryngeal element. Intubation was performed in 14 cases and was successful in relieving the obstruction in 11, but of these, one died of pneumonia which was present before admission to hospital. The other 3 were not relieved by intubation and required tracheotomy. All 3 died, but 2 were hopeless when they came under treatment.

Tracheotomy alone was performed in 3 cases, and 2 recovered, and one—which was moribund on admission—died.

In one patient, tracheotomy had been done before the patient was admitted to this hospital; the patient recovered. Two patients, one notified diphtheria and one notified measles, were found to be suffering from concurrent diphtheria and measles. Both required intubation, and one recovered; the other died of broncho-pneumonia, which was present before the case was admitted to hospital.

One case of measles, complicated by broncho-pneumonia and laryngitis, needed intubation for relief of laryngeal obstruction; the patient died of pneumonia.

To summarise, 18 patients required interference for the relief of laryngeal obstruction, due to diphtheria alone, and of these, 5 died—4 of diphtheria and one of pre-existing pneumonia.

REACTIONS FOLLOWING SERUM.

Amount of serum received.	0—16,000 units.	24,000 or more.	Intravenous or intravenous and intra-muscular.		Totals.
			420	159	
Numbers					877
Urticaria	42	49	36	127	
Urticaria and pyrexia	4	6	13	23	
Rigor and urticaria	1	—	8	9	
Rigor	—	—	18	18	
Pyrexia and morbilliform rash	2	1	—	3	
Totals	49	56	75	180	
	11.6%	18.8%	47.2%	20.5%	

Table showing age and sex of diphtheria patients.

Age group.	0—5	5—10	10—15	15—25	25—45	Over 45	Totals.
RECOVERED.							
Males	162	178	66	19	14	2	441
Females	106	184	65	63	31	1	450
DIED.							
Males	20	18	3	3	1	—	45
Females	8	18	5	1	1	—	33
TOTALS	296	398	139	86	47	3	969

Hospital mortality 8.04 per cent.

The above table includes 6 cases of diphtheria admitted with a notified diagnosis of scarlet fever.

It can be deduced from the above table that 71 per cent. of total cases, and no fewer than 82 per cent. of the deaths, occurred in children under 10 years of age. In other words, 64 children under 10 years of age died during the year from a disease which is now preventable.

MEASLES.

Table showing age and sex of measles patients.

Age group.	0—5	5—10	10—15	15—25	25—45	Over 45	Totals.
RECOVERED.							
Males	79	18	—	1	1	—	99
Females	65	15	—	1	1	—	82
DIED.							
Males	6	—	—	—	—	—	6
Females	6	—	—	—	—	—	6
TOTALS	156	33	—	2	2	—	193

Hospital mortality 6.22 per cent.

The above table includes 13 cases notified scarlet fever.

The above table includes 8 cases notified diphtheria.

The above table includes 1 case notified rubella.

One of the patients mentioned above as being admitted with a notified diagnosis of diphtheria was actually suffering from measles, broncho-pneumonia, and laryngitis. This patient required intubation for relief of laryngeal obstruction, but eventually died.

Revision of diagnosis. 27 patients notified as measles were found to be suffering from—

Rubella	...	...	...	...	13
Scarlet fever	...	...	...	...	3
Erythema	...	...	...	...	6
Whooping cough	...	...	...	...	1
Influenza	...	...	...	...	1
Primary broncho-pneumonia	...	...	...	...	1
No evidence of disease	...	...	...	...	2
				Total	27

Concurrent infections occurred as follows:—

Concurrent measles and whooping cough	...	4
Concurrent measles and scarlet fever	...	2
Concurrent measles and diphtheria	...	1
	Total	7

These 7 cases are included in the measles age-sex table.

12 deaths occurred among the measles patients, the cause of death being due to—

Pneumonia	...	...	...	...	9
Pneumonia and convulsions				...	2
Marasmus	...	...	...	...	1
				Total	12

Hospital mortality 6.22 per cent.

The principal complications were as follows:—

				Patients who recovered.	Fatal cases.
Pneumonia	...	...	...	32	11
Otitis media	...	...	...	29	1
Enteritis	...	...	...	11	1
Bronchitis	...	...	...	5	—
Laryngitis	...	...	...	5	1
Ophthalmia	...	...	...	1	—
Convulsions	...	...	...	—	2
Marasmus	...	...	...	—	1
			Totals	83	17
				—	—

The 83 complications in patients who recovered, mentioned above, occurred in 66 patients.

43 cases showed pneumonia as a complication, and of these 11 died (25.5 per cent.). In 42 cases, pneumonia was present on admission to hospital (40 broncho-pneumonia and 2 lobar-pneumonia) and in one case the complication developed in hospital.

29 cases were complicated by otitis media. In 16 cases it was present on admission, and in the other 13 it developed while the patient was in hospital.

WHOOPING COUGH.

Table showing age and sex of whooping cough patients.

Age group.	0—5	5—10	10—15	15—25	25—45	Over 45	Totals.
RECOVERED.							
Males	71	8	—	—	—	—	79
Females	76	18	—	1	—	—	95
DIED.							
Males	18	—	—	—	—	—	18
Females	19	—	—	—	—	—	19
TOTALS	184	26	—	1	—	—	211

Hospital mortality 17.6 per cent.

The above table includes 2 patients notified scarlet fever.

The above table includes 2 patients notified diphtheria.

The above table includes 2 patients notified measles.

One patient notified diphtheria and one notified measles, died.

Revision of diagnosis. 216 patients were admitted with a notified diagnosis of whooping cough, and of these, 11 required revision of diagnosis, i.e.

Bronchitis	...	...	...	...	4
Pneumonia	...	...	...	...	1
No evidence of disease					3
Quinsy	...	...	...	...	1
Enteritis	...	...	...	...	1
Laryngitis	...	...	...	...	1
				Total	11

Concurrent whooping cough and diphtheria 1
Concurrent whooping cough and measles 4 (2 died)

The principal complications were as follows:—

	Patients who recovered.				Fatal cases.
Broncho-pneumonia	36	29
Bronchitis	22	1
Otitis media	10	—
Enteritis	7	11
Lobar pneumonia	3	—
Hemiplegia	1	—
Convulsions	—	10
Marasmus	—	5
Prematurity	—	1
Laryngitis	—	1
	Totals				58

The complications, 79, tabulated above, occurred in 54 patients.

Of the 211 patients found to be suffering from whooping cough, 68 were complicated by pneumonia, and of these 29 died.

In 66 cases, pneumonia was present on admission to hospital, and in 2 cases, pneumonia developed whilst the patient was under treatment.

Cause of death in whooping cough was as follows:—

Broncho-pneumonia	...	...	...	20
Broncho-pneumonia and convulsions			...	9	
Convulsions	...	...	...	1
Bronchitis and enteritis	...	...	...	1
Uncomplicated (mostly marasmus)			...	6	
	Total				37

ERYSIPelas.

Table showing age and sex of erysipelas patients.

	Age group	0—5	5—10	10—15	15—25	25—45	Over 45	Totals.
RECOVERED.								
Males	6	4	—	7	9	25	51
Females	7	4	2	12	29	19	73
DIED.								
Males	4	—	—	—	1	3	8
Females	3	—	—	1	—	2	6
TOTALS	20	8	2	20	39	49	138

Hospital mortality 10.1 per cent.

The above table includes 3 cases of erysipelas admitted to hospital with a notified diagnosis of diphtheria, and one with a notified diagnosis of meningitis. Of the 138 true cases of erysipelas admitted to hospital, 14 died.

Revision of diagnosis. 14 of the 148 patients notified as suffering from erysipelas were finally diagnosed as suffering from—

Phlebitis	...	...	...	...	2
Cellulitis	...	...	...	...	4
Catarrhal jaundice		...	...	...	1
Herpes	...	...	...	...	2
Pemphigus	...	...	...	...	1
Dermatitis	...	...	...	...	1
Furuncle	...	...	...	...	1
Abscess	...	...	...	...	2
				Total	14
					—

The site of erysipelas was—

Face and scalp	...	...	...	116
Limbs	...	...	...	13
Trunk	...	...	...	2
Generalised infection	...	...	...	7
			Total	138
				—

The principal complications were as follows:—

	Patients who recovered.	Fatal cases.
Abscess	...	17
Nephritis	...	3
Otorrhoea	...	2
Pneumonia	...	1
Relapse	...	3
Cellulitis	...	1
Mastoiditis	...	1
	Totals	28
		5

The 28 complications tabulated above occurred in 22 patients who recovered. In 5 instances, pneumonia occurred in those cases which ended fatally.

RUBELLA.

Ten cases were admitted with a notified diagnosis of rubella. Three required revision of diagnosis.

In all 44 cases were diagnosed as rubella, and this figure was made up as follows:—

Notified as rubella	...	...	...	7
Notified as scarlet fever	...	...	...	34
Notified as measles	...	...	...	13
Notified as diphtheria	...	...	...	1
			Total	55
				—

CHICKENPOX.

Eight cases required revision of diagnosis, and one of these was suffering from concurrent chickenpox and posterior basal meningitis, which caused its death. The case has been transferred to Cerebro-spinal meningitis.

ENTERIC FEVER.

Patients admitted with a notified diagnosis of enteric fever during 1934 number 27. Of these, 13 required revision of diagnosis. Five suspected carriers of the bacillus typhosus were proved free of infection when investigated. Two were suffering from primary lobar pneumonia, one showed an acute abdominal condition and the remaining three were cases of dysentery.

To the 14 patients admitted with enteric fever must be added one notified as scarlet fever, and one notified as diphtheria who was sent into hospital on the strength of a positive swab, which was proved to be avirulent.

Of these 16 cases of enteric fever, 10 were *B. typhosus* infections and 3 of them died. One of the deaths occurred in a patient with a meningeal type of infection, another after repeated haemorrhage, and the third was a very toxic infection in a girl of 12 years of age.

Five patients were infected with the *B. paratyphosus* B and one, a child of nine months, died.

MENINGITIS.

Six patients were admitted with a notified diagnosis of cerebro-spinal meningitis during the year and of these, 4 were revised to another diagnosis, one to erysipelas, another to encephalitis of unknown origin, the third to streptococcal meningitis secondary to otitis media, and the last to a traumatic condition of the neck following an accident.

Two patients were suffering from cerebro-spinal meningitis, and to these is added an infant admitted with concurrent chickenpox and posterior basal meningitis; all three died.

SUMMARY OF MISCELLANEOUS DISEASES.

	Number of cases notified.	Diagnosis revised.	Notified as another disease.	Actual number of cases.	Died.	Case mortality.
Measles	199	28	22	193	12	6.22%
Whooping Cough	216	11	6	211	37	17.6%
Erysipelas	148	14	4	138	14	10.1%
Chickenpox	28	8	6	26	—	—
Enteric fever	27	13	2	16	4	25.0%
Dysentery	18	—	10	28	—	—
Mumps	10	2	—	8	—	—
Rubella	10	3	48	55	—	—
Meningitis	6	4	1	3	3	100.0%
Miscellaneous Conditions	6	—	—	—	—	—
TOTAL	668					

OPERATIONS.

Removal of tonsils and adenoids	...	...	...	...	...	...	15
Mastoidectomy	...	...	...	...	...	...	23
Incision and drainage of suppurative conditions	...	...	...	...	...	...	10
Abdominal operations, appendicectomy, etc.	...	...	...	...	...	...	8
Removal of sequestrum	...	...	...	...	...	...	5
Trephine	...	...	...	...	...	...	1
Skin graft	...	...	...	...	...	...	1
Drainage of empyema	...	...	...	...	...	...	1
						Total	64

To perform the 64 operations, the surgeons made 40 visits to the hospital.

On several occasions, the services of the surgeons were required for consultation in cases which did not require operation.

LABORATORY.

The following table contains a summary of the work conducted in the hospital Laboratory during 1934.

Examinations.	Number.
Specimens for <i>B. diphtheriae</i> (positive)	1,128
Specimens for <i>B. diphtheriae</i> (negative)	1,829
Bacteriological examination of blood	4
" " of cerebro-spinal fluid	8
" " of faeces	45
" " of urine	12
" " of sputum	13
" " miscellaneous	67
Blood for Widal reaction	3
Chemical examination, etc., of cerebro-spinal fluid	11
Qualitative chemical examination of urine	162
Quantitative chemical examination of urine	34
TOTAL	3,316

STAFF PROPHYLAXIS.

All new members of the nursing and domestic staff were Schick and Dick tested soon after entering the hospital.

Number Schick and Dick tested	108
Schick positive	41 (38%)
Acquired immunity after course of prophylactic	35
Left hospital before acquiring immunity	6
Dick positive	23 (21.3%)
Acquired immunity after course of prophylactic	17
Left hospital before completion of immunisation	3
Developed scarlet fever before completion of immunisation	3

No member of the staff who was an original Dick negative reactor, or who had become Dick negative as a result of a course of scarlet fever prophylactic, contracted scarlet fever during the year 1934.

Two members of the nursing staff who had not previously been immunised developed mild diphtheria during the year.

INCIDENCE OF SICKNESS AMONGST THE STAFF.

	Nursing staff.	Domestic staff.	Total.
Scarlet fever	3	—	3
Diphtheria	2	—	2
Tonsillitis	36	7	43
Rheumatism	1	2	3
Rubella	3	1	4
Appendicitis	2	—	2
Laparotomy	1	—	1
Dysentery	2	—	2
Mastoiditis	1	—	1
Eczema	2	—	2
Totals	53	10	63

The health of the staff was, on the whole, very satisfactory. It will be noted that the figure, 36, representing the number of nurses who suffered from tonsillitis is practically the same as in 1933 (37), whereas the number during 1932—when the nurses were overcrowded in temporary quarters—was 67.

DISINFECTION.

The following table gives details of the work done during 1934:—

Houses disinfected after smallpox	...	...	...	...	...	...	0
Houses disinfected after scarlet fever	...	...	...	...	...	...	140
Houses disinfected after diphtheria	...	...	...	...	...	...	1,604
Houses disinfected after enteric fever	...	...	...	...	...	...	32
Houses disinfected after tuberculosis	...	...	...	...	...	...	1,734
Houses disinfected after cancer (on request)	...	...	...	...	...	...	122
Houses disinfected after miscellaneous diseases (on request)	...	...	...	...	...	...	233
Beds disinfected	...	...	...	...	...	...	1,692
Miscellaneous articles of clothing and bedding	...	...	...	...	...	...	26,979
Library books disinfected	...	...	...	...	...	...	1,751
Public conveyances disinfected	...	...	...	...	...	...	18

TUBERCULOSIS.

(By Dr. G. B. DIXON, Chief Clinical Tuberculosis Officer).

INSTITUTIONS AND ACCOMMODATION PROVIDED.

The Birmingham Public Health Committee maintains a single Dispensary which serves the whole of the city, and in addition they provide 601 beds for the treatment of pulmonary and other forms of tuberculosis, and for the observation and investigation of suspected cases of tuberculosis.

The Anti-Tuberculosis Centre is centrally situated in the city and is open for five days during the week and on Saturdays for half the day. A small number of sessions during each week is reserved for patients attending for treatment, supervision, and observation. Most of the sessions during the week are set apart for consultations and examinations. In addition, many consultations and examinations are undertaken at the homes of patients by members of the medical staff. The medical staff of the dispensary, with one exception, are also responsible for the medical work of the various municipal sanatoria.

The beds for treatment, etc., are contained in four sanatoria and are allocated in the following way.

YARDLEY GREEN ROAD SANATORIUM:—

		Beds	Total	Grand Total
Adults : Male :	Observation	10		
	Treatment, intermediate and advanced cases of all forms of tuberculosis	144	154	
Female :	Observation	8		
	Treatment, early and intermediate cases of all forms of tuberculosis	44	52	
Children :	Observation	18		
	Treatment, all stages and for all forms of tuberculosis	101	119	
				325

WEST HEATH SANATORIUM:—

Adults : Male :	Advanced and intermediate pulmonary tuberculosis	cases of	24	
Female :	Ditto ..... .... .... ....	.....	96	
				120

SALTERLEY GRANGE SANATORIUM:—

Adults : Male :	Early cases of pulmonary tuberculosis	38		
Female :	Ditto	30		
				68

ROMSLEY HILL SANATORIUM:—

Adults : Male :	Early and intermediate cases of pulmonary tuberculosis	57		
Female :	Ditto	31		
				88
				601

The treatment undertaken in the different sanatoria includes lung collapse by means of artificial pneumothorax, treatment by gold salts, vaccines, etc., etc. In suitable cases other forms of surgical treatment are advised.

At the Yardley Green Road Sanatorium, which is situated $3\frac{1}{2}$ miles from the centre of the city, the patients are housed in eight detached pavilions. The kitchens, domestic stores, nurses' home, and medical officers' apartments, are situated in a large central building.

The cooking is undertaken in a central kitchen, and food is conveyed to the four dining halls by means of electric trolleys.

The sanatorium buildings include an administration office block, in which there is a laboratory. In addition, there are occupational therapy shops, a school room, and three recreation halls, a department for X-ray work, and a section for artificial light treatment, which is used both for in-patients and out-patients.

The clinical blocks at West Heath Sanatorium, which is situated 8 miles from the centre of the city, consist of one pavilion for male cases and four pavilions for female cases, two of which have recently been re-constructed and fitted with large verandahs. There is, in the process of construction, a rest room for aged female patients, and there are two recreation rooms, one for males and one for females. In addition, there is a laboratory, and an occupational therapy shop.

Romsley Hill Sanatorium, which is situated 12 miles from the centre of the city, is a two storey building, and contains a number of cubicles for one, two, three, four, and six beds. There are also several wards for ten and eleven beds. In addition, there are two detached pavilions, one containing eight beds and another containing four. There are two recreation rooms, one for men and one for women. The sanatorium has two occupational therapy shops and a laboratory.

Salterley Grange Sanatorium, situated 40 miles from the centre of the city in the Cotswolds, consists of a large administrative block containing residential quarters for the staff, and in addition, a kitchen, stores, and dining hall for the patients. There are two recreation rooms for patients and a laboratory. The accommodation for patients includes forty single bed rooms, eleven rooms accommodating two beds, and two rooms which accommodate three patients.

In addition to the patients treated in the City Sanatoria during the year there were 11 adult males, and 22 adult females, and 111 children suffering from the non-pulmonary forms of tuberculosis, who were admitted to various hospitals, including the Royal Cripples' Hospital, Moseley Hall, and the Children's Hospital, etc., for the treatment of non-pulmonary forms of tuberculosis. A grant towards the maintenance of these patients was made by the Public Health Committee.

During the year, the home visits made by the medical staff numbered 1,063 which is an increase over those paid in the previous year. The personal consultations between members of the medical staff and practitioners in the city, during the year was 190, in addition there were 6,153 other consultations with medical practitioners during the year.

Many patients attended at the City Sanatorium, Yardley Green Road as out-patients, for artificial light treatment; during the year under review, the number of attendances for this purpose was 11,577.

Admissions to the Sanatoria are decided upon only after examination at the Centre or at the patients' homes, and the sanatorium to which the patients are sent depends on the condition of the disease, etc. On returning from sanatoria, patients are re-examined at the Centre, and many old patients who discontinue treatment, are re-examined from time to time.

The Anti-Tuberculosis Scheme includes 36 beds at Yardley Green Road Sanatorium set apart for the purpose of observation and investigation:—

- 10 are reserved for boys
- 10 are for adult males
- 8 are for adult females
- 8 are for female children.

The provision of these beds facilitates a correct diagnosis, which would in some cases be difficult to arrive at without them.

The scheme is also fortunate in having a large number of beds set apart for the care and treatment of the hospital type of case; advanced male patients are admitted to Yardley Green Road Sanatorium, and advanced females to West Heath Sanatorium. These beds are essential upon humanitarian grounds, and in addition, are a prophylactic asset in connection with the public health work of the city. For this reason, it is desirable that as large a percentage as possible of the annual deaths occurring in the city from tuberculosis, should take place in beds controlled by the public health department.

During the period under review, there were 814 deaths in the city from all forms of tuberculosis, and of this number no less than 354 or 43.4 per cent. occurred in beds in the sanatoria and hospitals controlled by the Public Health Committee. A small number of beds is reserved in one of the Municipal Hospitals for tuberculous patients who require obstetric treatment.

TUBERCULOSIS STATISTICS, 1934.

The notified cases of tuberculosis showed a decrease during the year 1934, the number being 1,398 as compared with 1,486 in the year 1933.

The number of cases and deaths occurring in past years is shown by the following table:—

TUBERCULOSIS (all forms).

	New Cases	Rate per 1,000	Deaths	Death-rate per 1,000
1901-1905 (Average)	—	—	1,384	1.78
1906-1910	—	—	1,235	1.51
1911-1915	—	—	1,307	1.51
1916-1920	3,843	3.73	1,261	1.40
1921-1925	2,060	2.20	1,046	1.12
1926-1930	1,588	1.63	1,016	1.04
1922	1,961	2.12	1,049	1.13
1923	2,166	2.32	1,006	1.08
1924	2,129	2.22	1,055	1.10
1925	1,797	1.89	1,083	1.14
1926	1,704	1.78	1,024	1.06
1927	1,607	1.66	1,017	1.05
1928	1,606	1.64	965	0.99
1929	1,538	1.57	1,066	1.09
1930	1,483	1.51	1,008	1.03
1931	1,679	1.66	1,070	1.06
1932	1,517	1.49	954	0.98
1933	1,486	1.45	983	0.96
1934	1,398	1.36	814	0.79

The case-rate per 1,000 of the population, and the death-rate, are the lowest yet recorded.

The relative prevalence and mortality from pulmonary and other forms of tuberculosis shown separately is indicated in the two subsequent tables:—

PULMONARY TUBERCULOSIS.

	New Cases	Rate per 1,000	Deaths.	Death-rate per 1,000
1901-1905 (Average)	—	—	1,039	1.34
1906-1910	—	—	947	1.16
1911-1915	—	—	1,057	1.22
1916-1920	2,936	3.27	1,062	1.18
1921-1925	1,739	1.86	903	.96
1926-1930	1,827	1.36	881	.91
1919	2,704	2.92	1,019	1.10
1920	2,609	2.87	843	.93
1921	1,969	2.15	890	.97
1922	1,669	1.80	899	.97
1923	1,785	1.91	860	.92
1924	1,780	1.85	934	.97
1925	1,491	1.57	930	.98
1926	1,421	1.48	905	.94
1927	1,343	1.39	857	.89
1928	1,361	1.39	840	.86
1929	1,270	1.30	918	.94
1930	1,242	1.26	884	.90
1931	1,397	1.38	932	.92
1932	1,266	1.24	849	.88
1933	1,250	1.22	874	.85
1934	1,187	1.15	732	.71

Both the case-rate and the death-rate per 1,000 of the population are the lowest yet recorded.

NON-PULMONARY TUBERCULOSIS.

	New Cases.	Rate per 1,000	Deaths	Death-rate per 1,000
1901-1905 (Average)	—	—	345	.45
1906-1910	—	—	289	.35
1911-1915	—	—	249	.29
1916-1920	407	.45	199	.22
1921-1925	321	.34	143	.15
1926-1930	260	.27	135	.13
1919	412	.45	169	.18
1920	365	.40	158	.17
1921	278	.30	145	.16
1922	292	.32	150	.16
1923	381	.41	146	.16
1924	349	.36	121	.13
1925	306	.32	153	.16
1926	288	.30	119	.12
1927	264	.27	160	.17
1928	245	.25	125	.18
1929	268	.27	148	.15
1930	241	.25	124	.13
1931	282	.28	138	.14
1932	251	.25	105	.10
1933	236	.23	109	.11
1934	211	.21	82	.08

The number notified as suffering from the non-pulmonary forms of tuberculosis is the lowest yet recorded, so also is the death-rate.

The cases notified in 1934 comprise the varieties shown in the next table, which also indicates the number of cases in which information was obtained from the death certificate alone without previous notifications.

The total number of deaths is also shown.

	New Cases Notified in 1934.	Cases not Notified before Death.	Total Deaths.
Pulmonary Tuberculosis	1,187	23	732
Tubercular Meningitis	26	8	33
Tubercle of the Abdomen	27	3	7
Tubercle of the Spinal Column	30	3	8
Tubercle of the Joints	32	1	1
Disseminated Tuberculosis	18	8	24
Tubercle of the Glands and other parts	78	1	9

In the following table are shown the numbers of cases of some forms of Tuberculosis notified during the year, with the sex and age period at which they occurred.

CASES OF TUBERCULOSIS NOTIFIED DURING THE YEAR 1934.
CLASSIFIED ACCORDING TO SEX AND AGE.

	0—	1—	2—4	5—9	10—14	15—19	20—24	25—34	35—44	45—54	55—64	65—74	75 up.	TOTALS.
Pulmonary Tuberculosis	M. 2 2	5 5	17 29	24 28	18 83	48 88	95 134	135 67	99 54	110 54	64 23	28 8	4 3	649 538
Tubercular Meningitis	M. — 1	3 1	7 5	3 1	— 1	2 1	— —	— —	— 1	— —	— —	— —	— —	15 11
Tuberculosis of Peritoneum and Intestines	M. — —	— 1	2 1	4 1	3 2	2 1	— 3	2 2	— 2	1 —	2 —	— —	— —	16 11
Other forms of Tuberculosis	M. 2 1	3 1	12 13	13 7	6 9	9 11	5 13	10 11	6 2	5 3	6 3	6 1	— —	83 75

The figures for pulmonary tuberculosis in the age period 15-19 show a diminution during the past year both for males and females.
There is also a reduction in the number of females notified between the ages of 20-24.

In the subsequent table are shown the number of notifications and the number of deaths arranged for males and females according to the various age groups, relating to both pulmonary and non-pulmonary forms of tuberculosis.

TUBERCULOSIS—1934.

PULMONARY.	Male.		Female.	
	Cases.	Deaths.	Cases.	Deaths.
0—	2	2
1—	5	—
2—4	17	2
5—14	42	1
15—24	143	61
25—44	234	159
45—64	174	178
65—74	28	27
75 and upwards	4	5
	649	435	538	297
Cases, Total	...	1,187		
Deaths, Total	...	732		
NON-PULMONARY.				
0—	2	2
1—	6	4
2—4	21	12
5—14	29	10
15—24	18	8
25—44	18	4
45—64	14	10
65—74	6	2
75 and upwards	...	—	—	—
	114	52	97	30
Cases, Total	...	211		
Deaths, Total	...	82		
GRAND TOTALS, Cases	1,398			
Deaths	814			

The tuberculosis case-rates and death-rates in other towns for all forms of tuberculosis, are given in the following tables.

TUBERCULOSIS (All Forms).

Comparative Figures in 11 Largest Towns.

		Case-rate per 1,000	Death-rate per 1,000.
London	...	1.7	0.9
Glasgow	...	2.1	1.0
Birmingham	...	1.4	0.8
Liverpool	...	2.9	1.1
Manchester	...	1.8	1.1
Sheffield	...	2.9	0.8
Leeds	...	1.6	0.9
Edinburgh	...	1.7	0.8
Bristol	...	1.6	0.9
Hull	...	1.6	0.9
Bradford	...	1.2	0.8

It will be seen that Birmingham compares well with the other great towns.

TUBERCULOSIS IN THE CITY WARDS.

The distribution of tuberculosis over the Wards of the City is shown in the next table:

DISTRIBUTION OF TUBERCULOSIS.

			Case-rate per 1,000 in 1934		
			Non- Pulmonary	Pulmonary	Total
Central Wards	St. Paul's	...	1.74	.22	1.96
	St. Mary's	...	1.79	.35	2.14
	Duddeston and Nechells	1.73	.44	2.17	
	St. Bartholomews	1.50	.32	1.82	
	St. Martin's & Deritend	2.19	.23	2.42	
	Market Hall	1.73	.22	1.95	
	Ladywood	1.33	.23	1.56	
Average 2.00					
Middle Wards	Lozells	1.34	.13	1.47	
	Aston	.98	.26	1.24	
	Washwood Heath	1.18	.24	1.42	
	Saltley	1.23	.05	1.28	
	Small Heath	1.12	.06	1.18	
	Sparkbrook	1.03	.06	1.09	
	Balsall Heath	1.27	.27	1.54	
	Edgbaston	.96	.18	1.14	
	Rotton Park	1.37	.36	1.73	
	All Saints	1.16	.19	1.35	
Average 1.34					
Outer Ring	Soho	1.57	.16	1.73	
	Sandwell	.96	.10	1.06	
	Handsworth	1.33	.11	1.44	
	Perry Barr	.79	.19	.98	
	Erdington North	.85	.28	1.13	
	Erdington South	.78	.14	.92	
	Yardley	1.01	.26	1.27	
	Acocks Green	.85	.19	1.04	
	Sparkhill	.47	.27	.74	
	Moseley and King's Heath	.63	.13	.76	
	Selly Oak	1.08	.14	1.22	
	King's Norton	.77	.13	.90	
	Northfield	.90	.17	1.07	
	Harborne	.73	.09	.82	
Average 1.08					

The average for the Central Wards remains the same as last year, but there is a definite reduction in the average for the Middle Ring as compared with last year, and also a reduction in the average for the Outer Ring when compared with the previous year.

WORK OF THE TUBERCULOSIS VISITORS.

There are ten nurses engaged as Tuberculosis Visitors in the Department, each having charge of a definite part of the City. It is the duty of these Visitors to make enquiry into every notified case of tuberculosis, and afterwards to keep in touch by periodical visiting and carry out any aftercare, etc., that may be needed.

At the end of 1934 there were 6,404 cases of Tuberculosis on the current Register all of which have to be visited at more or less regular intervals. The visits paid last year were as follows:—

Primary Visits (to fresh cases) ...	1,500
Routine Visits (to old and new cases) ...	21,628
Special Visits and Re-visits ...	8,676

At the first visit to fresh cases, it was found that 694 patients out of 1,500 were sharing a bed with some other person; while 451 others shared a bedroom but had a separate bed. Efforts are always made to get a separate bedroom, or if this is out of the question, at least a separate bed for every patient. Unfortunately, owing to lack of accommodation or unwillingness on the part of patients, this is not always possible.

It is the duty of these Visitors to bring to the notice of the Department every case of over-crowding in relation to Pulmonary Tuberculosis, for representation to the Estates Committee for special treatment if considered advisable by the medical staff.

ACTION UNDER LEGAL ENACTMENTS.

No action was necessary during the year under the Public Health (Prevention of Tuberculosis) Regulations, 1925, relating to tuberculous employees in the milk trade, nor was section 62 of the Public Health Act, 1925, employed to remove any patient compulsorily to a sanatorium.

DISINFECTION.

The disinfection of 1,784 houses was undertaken during the year, where some member of the family had suffered or died from tuberculosis, or changed his or her address.

CARE WORK.

The Anti-Tuberculosis Centre undertakes a considerable amount of care work. The Care Committee consists of two members of the medical staff, two members of the health visitors' staff, two administrative officers, and a social worker not connected with the department.

During the year under survey, no less than 127 persons received beds and bedding from the department, either on loan or on hire purchase. In addition to this, 34 sleeping chalets were loaned to patients whose garden accommodation was such that they could make use of them.

Through the representations of the Care Committee, we were able to obtain better housing accommodation for the families of 73 of our patients, and in 98 cases the Care Committee made grants of clothing and other necessities to our patients and their families.

In addition to this, quite a large number of recommendations on behalf of our patients, were made to the Public Assistance Department, and charitable organisations in the city.

The Care Department has been instrumental in assisting patients or their families to obtain Christmas dinners, suitable treatment for ailments other than tuberculosis, convalescent, and dental treatments. Grants of food were made to 117 patients.

The close inter-communication existing between the Tuberculosis Section and the School Medical Officer's Department, and the Infant Welfare Medical Officer, has provided opportunities for the Care Committee to function in a wider sphere than would otherwise be possible.

In connection with the Occupational Therapy Department at Yardley Green Road Sanatorium, an interesting piece of care work amongst our ex-patients, was inaugurated more than four years ago, and in spite of an unfortunate period of economic stress and unemployment, it has met with some success. Young patients of both sexes between the ages of 15 and 19 who were unfit to re-enter industry under competitive conditions, upon discharge from sanatorium were selected for experiment. Those chosen were unfit to work for more than 5 or 6 hours daily and were only

capable of working for this period if allowed to go at their own pace under favourable hygienic industrial conditions. In addition, none of them commenced work before 9.30 in the morning, and if any did not feel fit to work, attendance was not compulsory. These patients are under medical supervision and are selected only after they have acquired a fair amount of proficiency in their work during their stay at the sanatorium as in-patients. The sanatorium provides working accommodation, raw materials, tools, etc., and markets the produce. No wages are paid, but profits are shared among the patients, and meals are provided at mid-day at cost price. We have been successful in obtaining some good contracts for our work and the annual cash turnover has exceeded our anticipations.

Most of the patients employed had no work for some time prior to their admission to the sanatorium, a number of them being largely dependent upon their total disablement allowance. In this case the effect of employment with its many advantages, has been beneficial; some ex-patients have recovered sufficiently, after prolonged periods in the workshops, to be able to return to their outside employment where they have been capable of working full time.

The business of travelling on behalf of our industry, is also undertaken by an ex-patient and excepting for buying and official supervision and advice, the work is carried out by the patients themselves.

ANTI-TUBERCULOSIS CENTRE.

ATTENDANCES AND EXAMINATIONS.

The total number of attendances at the Anti-Tuberculosis Centre during the year 1934, made by patients for the purposes of diagnosis, consultation, observation, advice, and treatment was 34,869.

This total is made up of 4,300 attendances for supervision, observation, and advice; 9,066 attendances for examination; 7,940 attendances for X-ray examination; and 13,563 attendances in the artificial light department. The X-ray work included 5,871 screen examinations, and 2,069 films, which is an increase in X-ray examinations of 1,762 when compared with the previous year.

Attendances for supervision, observation and treatment	...	4,300
Attendances for consultation and examination	...	9,066
Attendances for Light Treatment—		
Yardley Green Road Sanatorium	...	11,577
151, Gt. Charles Street	...	1,986
X-ray examinations (Screen)	...	5,871
X-ray examinations (Films)	...	2,069
		34,869

During the year 1934, some 1,187 new cases of pulmonary tubercle were notified to the Medical Officer of Health, and of this number 1,021 or 86 per cent. were examined at the Centre. There were also 211 cases of non-pulmonary tuberculosis notified during the year, of which 130 or 61.6 per cent. were examined at the Centre.

The number of persons on the Dispensary Register on the 1st of January was 5,334; the number of patients transferred to other areas during the year, and the cases "lost sight of" numbered 218; the number transferred to us from other areas and the "lost sight of" cases returned was 42.

At the end of the year 870 insured persons were receiving Domiciliary treatment at the recommendation of the medical staff.

TREATMENT RECOMMENDED.

In the following table are set out treatments recommended to patients examined at the Anti-Tuberculosis Centre during the year.

	First Examinations.				Re-examinations.	
	Newly notified.	Suspects or Contacts.	Old Cases.	Suspects or Contacts.		
Sanatorium Treatment	439	298	376	6
Dispensary Treatment	11	5	32	—
Supervision	20	8	861	—
Out-patient Light Treatment	5	6	19	—
Domiciliary Treatment	97	64	1,197	—
No Treatment required	338	2,506	499	499
			910	2,887	2,984	505

The table above shows that a large percentage of new cases notified during the year received a primary period of sanatorium treatment. This is an advantage to the patient inasmuch as his physical condition is benefited and he acquires practical experience of the treatment which it would be to his advantage to carry out in a modified form in his own home afterwards.

CLASSIFICATION OF PATIENTS ACCORDING TO GROUP OF DISEASE.

The following tables show the classification of the patients examined according to Group of disease; adults and children are shown separately.

ADULTS

	First Examinations.				Re-examinations.	
	Newly notified.	Suspects or Contacts.	Old Cases.	Suspects or Contacts.		
Group I.	72	89	448	2
Group II.	273	155	1,404	—
Group III.	241	100	489	—
Group IV.	48	19	134	—
No Treatment Required	179	1,304	81	153
			813	1,667	2,556	155

CHILDREN.

	First Examinations.				Re-examinations.	
	Newly notified.	Suspects or Contacts.	Old Cases.	Suspects or Contacts.		
Group I.	14	56	178	3
Group II.	8	17	86	1
Group III.	4	1	13	—
Group IV.	22	7	113	1
No Treatment Required	49	1,139	38	345
			97	1,220	428	350

In certain instances patients included in the various groups are suffering from other forms of tuberculosis in addition to pulmonary, but for convenience are classified as pulmonary cases when that type of the disease is present in association with other types.

In the succeeding tables are set out briefly some details of those who were referred to us as contacts and suspects. Amongst those classified here as suspects are many who had been living in contact with known cases of tuberculosis, and who were, therefore, possibly referred to us mainly for this reason.

The contacts have been divided into various groups, and they have also been arranged to show the numbers in each group that came from homes where there had been contact with patients suffering from tuberculosis associated with a positive sputum.

SUSPECTS EXAMINED DURING THE YEAR 1934.

Total—1,696.

Definitely tuberculous	...	...	...	...	...	392 or 23.1%
No signs of active tuberculosis	...	...	...	...	...	1,304 or 76.9%

CONTACTS EXAMINED DURING THE YEAR 1934.

AGES.	Total No. of Cases.	Found <i>to be</i> suffering from Tuberculosis.	Found <i>not to be</i> suffering from Tuberculosis.
<i>1 to 4 years.</i>			
Contacts to patients with sputum <i>containing</i> <i>tubercle bacilli</i>	...	375	10 or 2.6% 365 or 97.3%
Contacts to patients <i>with negative sputum</i>	...	323	2 or .6% 321 or 99.3%
	698	12	686

5 to 16 years.

Contacts to patients with sputum <i>containing</i> <i>tubercle bacilli</i>	...	211	25 or 11.9% 186 or 88.1%
Contacts to patients <i>with negative sputum</i>	...	119	5 or 4.2% 114 or 95.8%
	330	30	300

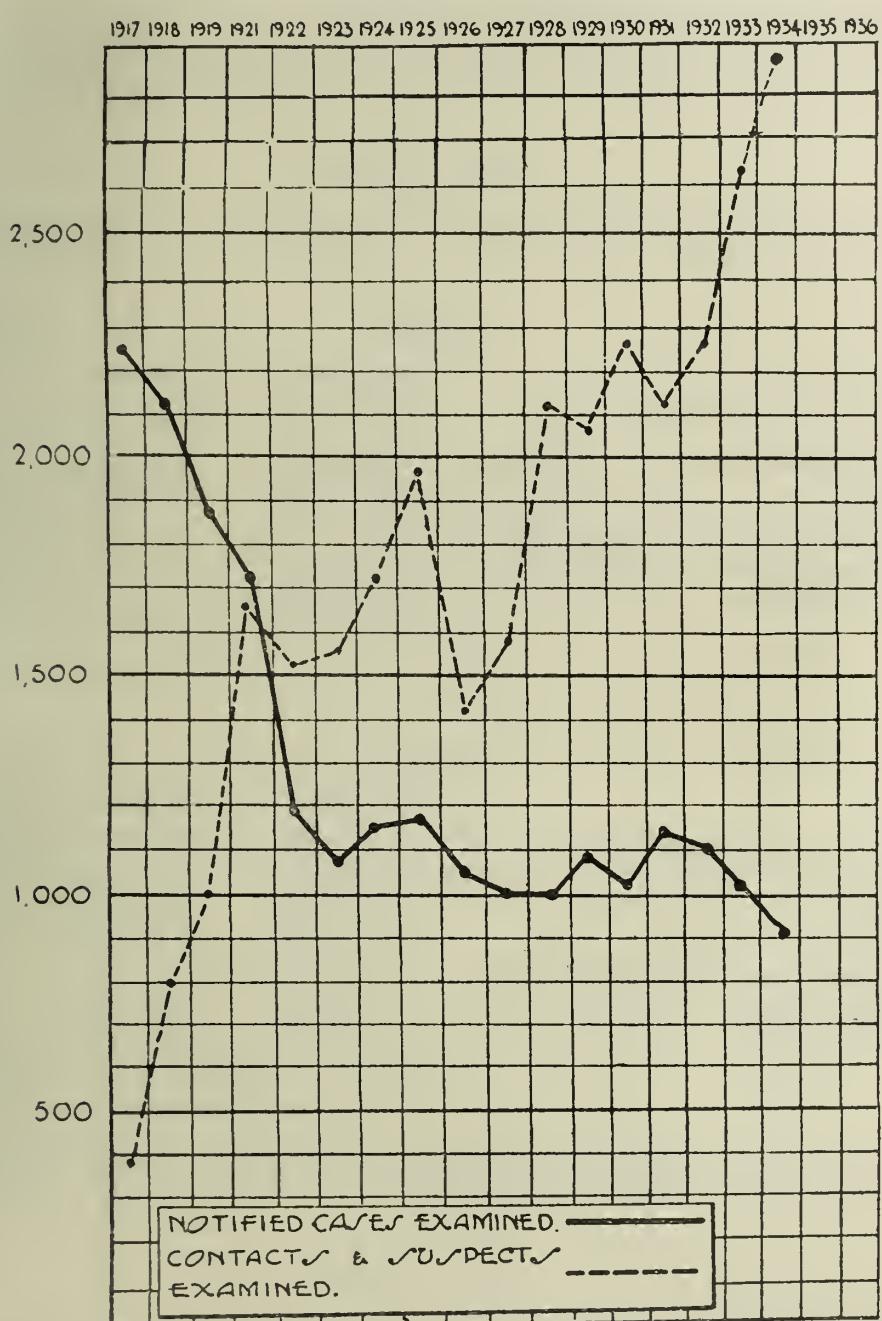
17 years and over.

Contacts to patients with sputum <i>containing</i> <i>tubercle bacilli</i>	...	93	8 or 8.6% 85 or 91.4%
Contacts to patients <i>with negative sputum</i>	...	70	2 or 2.9% 68 or 97.1%
	163	10	153

"CONTACTS," "SUSPECTS" AND "NOTIFIED CASES."

In the Graph below are shown the number of "contacts" and "suspects" and "notified cases" examined over a series of years.

PULMONARY TUBERCULOSIS.



The work of the Tuberculosis Department is greatly facilitated when patients in the General Hospitals (voluntary and municipal) who are suffering from tuberculosis, are advised to apply to the Tuberculosis Department for further treatment, and for the examination of their families as "contacts".

Unless the patient realises that he is suffering from tuberculosis when he leaves the hospital, he is sometimes disinclined to accept further treatment in a sanatorium, because he imagines the time spent in the hospital is all the treatment he is likely to require.

During the past year 267 notifications of tuberculosis were received from the Municipal and Public Assistance Hospitals, having an aggregate number of beds equivalent to 4,412. Of this number 75 were acutely ill and died prior to their examination; 182 patients were examined and of this number 20 refused treatment; 10 patients were not examined for a variety of reasons.

FAMILY HISTORY.

A survey of the family history has been made of 2,282 patients examined who were definitely tuberculous, and the results are shown in the following tables:—

ADULTS.

		Newly Notified.	Suspects.	Contacts.
No family history of tuberculosis	...	518 or 81.0%	309 or 95.0%	—
Father suffering or suffered from tuberculosis		27 or 22.3%	9 or 60.0%	4 or 9.9%
Mother ditto	...	9 or 7.4%	4 or 26.6%	6 or 14.6%
Brother or Sister	...	29 or 24.0%		9 or 21.9%
1 Relative other than above, school fellow or intimate friend	...	27 or 22.3%	2 or 13.3%	11 or 26.8%
Two or more relatives	...	29 or 24.0%		11 or 26.8%
TOTAL	...	121	15	41

CHILDREN.

		Newly Notified.	Suspects.	Contacts
No family history of tuberculosis	...	36 or 75.0%	27 or 67.5%	—
Father suffering or suffered from tuberculosis		6 or 50.0%	4 or 30.8%	19 or 41.1%
Mother ditto	...	1 or 8.3%	4 or 30.8%	11 or 24.0%
Brother or Sister	...	1 or 8.3%	2 or 15.4%	4 or 8.7%
1 Relative other than above, school fellow or intimate friend	...	1 or 8.3%	2 or 15.4%	—
Two or more relatives	...	3 or 25.0%	1 or 7.6%	12 or 26.1%
TOTAL	...	12	13	46

The information contained above is interesting in that, among other points, it shows the father to have been known as a sufferer from tuberculosis more frequently than the mother.

DENTAL TREATMENT.

The part-time services of a dental surgeon are utilised at the Centre for the necessary treatment of our patients. The treatment is conservative in type, and consists mainly of extractions, fillings, and scalings. Patients who wish to provide their own dentures can do so under conditions advantageous to themselves by arrangement with the dental surgeon. During the year there were 410 extractions, 17 fillings, 4 repairs, and dentures were supplied in 12 instances. The condition of the teeth and gums of most of our patients seen during the year, so far as dental caries, masticatory power, and the state of the gums were concerned, is shown in the following table.

CONDITION OF TEETH AND GUMS.

Number of Teeth with infected pulp chambers.	Masticatory power in molars and bicuspids.			State of Gums.		
	Six or More.	Less than 6.	None.	Healthy	Gingivitis	Pyorrhoea.
None. 1 to 4. More than 4.						
2,542 2,126 299	3,542	907	518	3,893	666	434

LABORATORY WORK.

A very large number of sputum examinations are undertaken during the year on behalf of persons who are referred for an opinion. If the first examination gives a negative result, subsequent and repeated specimens are examined.

As soon as a patient is referred for examination, a sputum outfit, with instructions and a request for its early return, is posted. Amongst the new adult patients examined for the first time during the year, in whom a definite diagnosis of pulmonary tuberculosis was made, *i.e.*, 930, there were 514 or 55.2 per cent. who presented tubercle bacilli in their sputum. Amongst the total number of children primarily examined in whom a definite diagnosis of pulmonary tuberculosis was made, *i.e.*, 152 there were 7 or 4.6 per cent. who presented tubercle bacilli in their sputum.

The difficulty of obtaining sputum from children, even when it exists, is recognised, so all children, whether admitted for observation or treatment, have the faeces and a gastric lavage examined for acid fast bacilli, they are also submitted to a Mantoux tuberculin test. All adult patients who enter the observation pavilions have a blood sedimentation test undertaken, and have the faeces examined for acid fast bacilli in addition to sputum examinations.

At the Centre during the year 4,966 specimens of sputum were examined, and 50 other specimens were also examined. At Yardley Green Road Sanatorium 6,472 specimens of sputum were examined during the year, and 3,398 specimens of urine. Romsley Hill Sanatorium records show that 1,016 specimens of sputum were examined during the year and 1,326 specimens of urine, and at West Heath Sanatorium 1,197 specimens of sputum were examined and 400 specimens of urine. Salterley Grange Sanatorium returns show that 822 specimens of sputum were examined during the year and 519 specimens of urine.

COMPLETED CASES.

During the year 1,772 patients completed a course of treatment, or supervision, etc., at the Centre, of whom 1,459 were adults and 313 were children.

In the next table the working capacity at the commencement and at the end of a completed period of treatment is given for those patients who were examined during the year. The group of disease quoted was determined at the first examination.

WORKING CAPACITY OF PATIENTS ATTENDING CENTRE.

	GROUP I. Adults.	GROUP I. Children.	GROUP II. Adults	GROUP II. Children	GROUP III. Adults	GROUP III. Children	GROUP IV. Adults	GROUP IV. Children
Unimpaired working capacity becoming impaired ...	2	2	—	—	—	—	2	2
Unimpaired capacity for work persisting ...	—	—	—	—	—	—	—	1
Impaired capacity for work becoming unimpaired ...	150	90	158	35	12	2	24	41
Impaired capacity for work becoming totally incapacitated ...	... ... ... ...	10	2	48	—	21	1	3
Impaired capacity for work persisting ...	... ...	136	43	410	20	107	1	33
Total incapacity becoming impaired ...	... ...	24	3	96	3	91	1	20
Total incapacity becoming unimpaired ...	... ...	10	3	34	10	6	3	11
Total incapacity persisting ...	... ...	—	1	13	1	33	—	5
	332	144	759	69	270	8	98	92

In the following tables are set out, as briefly as possible, the main points in connection with an investigation undertaken to ascertain the conditions of those past patients who received treatment at the Centre between the years 1913-1934 inclusive.

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS, SHOWING CONDITION OF THOSE WHO
WERE TREATED FOR PULMONARY TUBERCULOSIS.

		Previous to 1926			1926			1927			1928			1929												
		Class T.B. plus		Class T.B. plus		Class T.B. plus		Class T.B. plus		Class T.B. plus		Class T.B. plus		Class T.B. plus		Class T.B. plus										
Condition at the time of the last record made during the year to which the return relates.		Class T.B. plus	Group 1	Group 2	Group 3	Class T.B. plus	Group 1	Group 2	Group 3	Class T.B. plus	Group 1	Group 2	Group 3	Class T.B. plus	Group 1	Group 2	Group 3									
Disease Arrested	Adults	M. 140	13	44	19	76	11	—	4	1	5	11	3	7	2	12	16	4	6	—	10	34	7	11	1	19
	F.	135	7	17	12	36	14	1	4	—	5	14	—	4	—	4	17	1	4	—	5	15	4	2	1	7
Children		178	3	—	4	7	20	—	—	—	—	36	1	2	—	3	26	1	2	—	3	46	—	1	—	1
Disease not Arrested	Adults	M. 61	20	84	57	161	18	2	24	6	32	15	7	35	5	47	24	8	25	2	35	27	13	34	7	54
	F.	93	7	39	42	88	20	5	16	6	27	15	2	18	1	21	22	5	23	3	31	34	15	29	9	53
Children		53	2	5	2	9	14	1	—	—	1	31	—	1	—	1	22	—	—	—	—	38	2	—	—	2
Condition not ascertained during the year		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total on Dispensary Register at 31st December		660	52	189	136	377	97	9	48	13	70	122	13	67	8	88	127	19	60	5	84	194	41	77	18	136
Discharged as Recovered	Adults	M. 1,617	169	243	92	504	20	1	3	—	4	13	1	3	—	4	9	1	—	—	1	6	—	—	—	—
	F.	1,762	116	154	53	323	38	1	3	1	5	9	1	—	—	1	7	1	2	3	6	3	—	2	—	2
Children		1,968	32	23	15	70	27	—	—	—	—	27	—	—	—	—	6	—	—	—	—	6	—	—	—	—
Lost sight of, or otherwise removed from Dispensary Register.	Adults	M. 886	161	774	1,440	2,375	61	15	124	182	321	46	13	158	173	344	46	14	171	161	346	48	19	160	169	348
	F.	640	61	315	732	1,108	73	7	89	122	218	58	5	84	118	207	30	9	104	100	213	34	13	99	102	214
Children		178	10	11	46	67	12	1	2	7	10	9	1	2	6	9	5	—	2	8	10	8	1	1	5	7
Total written off Dispensary Register		8,882	723	1,782	2,577	5,082	295	26	240	323	589	211	27	260	300	587	152	33	304	284	621	145	41	300	282	623
GRAND TOTALS	...	...	...	9,542	775	5,459	392	35	288	336	659	333	40	327	308	675	279	52	364	289	705	339	82	377	300	759

Not now on Dispensary Register, and reasons for removal theretofrom.

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO
WERE TREATED FOR PULMONARY TUBERCULOSIS.

		1930			1931			1932			1933			1934			
		Class T.B. plus		Class T.B. plus	Class T.B. plus		Class T.B. plus	Class T.B. plus		Class T.B. plus	Class T.B. plus		Class T.B. plus	Class T.B. plus		Class T.B. plus	
Disease arrested	Adults	M.	22	1	4	—	5	6	1	2	—	3	1	—	—	—	
	F.	25	—	3	—	3	5	1	1	—	2	3	1	—	—	—	
	Children	18	1	1	—	2	11	—	1	—	1	3	—	—	—	—	
Disease not arrested	Adults	M.	58	18	61	11	90	59	12	72	17	101	93	27	132	100	
	F.	39	9	30	8	47	68	18	48	13	79	82	15	66	12	93	
	Children	33	—	1	—	1	80	2	2	1	5	48	10	3	1	14	
Condition not ascertained during the year	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total on Dispensary Register at 31st December		195	29	100	19	148	229	34	126	31	191	230	38	162	40	240	
Discharged as Recovered	Adults	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Children	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Lost sight of, or otherwise removed from Dispensary Register.	Adults	M.	42	5	21	7	33	42	7	30	9	46	20	6	24	11	
	F.	43	9	158	147	314	47	6	141	165	312	37	5	94	151	250	
	Children	7	—	5	6	11	11	—	6	5	11	4	—	3	7	10	
Total written off Dispensary Register		138	22	280	263	565	138	19	260	300	579	90	17	190	278	485	
GRAND TOTALS	333	51	380	282	713	367	53	386	331	770	321	55	352	318	725

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO
WERE TREATED FOR NON-PULMONARY TUBERCULOSIS.

		Condition at the time of the last record made during the year to which the return relates.		Previous to 1926		1926		1927		1928		1929	
				Disease Arrested		Disease not Arrested		Condition not ascertained during the year		Total on Dispensary Register at 31st December		Transferred to Pulmonary	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Bones and Joints		Abdominal		Peripheral Glands		Other Organs		Abdominal		Peripheral Glands		Other Organs	
Adults		Children		Adults		Children		Adults		Adults		Adults	
Disease Arrested		Disease not Arrested		Condition not ascertained during the year		Total on Dispensary Register at 31st December		Transferred to Pulmonary		Total written off Register		Grand Totals	
Not now on Dispensary Register		Remaining on Dispensary Register		Discharged as Recovered		Lost sight of, or otherwise removed from Dispensary Register		Dead		Total		Grand Totals	

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO
WERE TREATED FOR NON-PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the return relates		1930		1931		1932		1933		1934	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Disease Arrested		Adults		1	—	—	—	1	2	—	—
		Children		3	4	7	18	1	3	—	—
		5	M.	5	2	3	12	2	4	3	21
Disease not Arrested		Adults		1	—	4	2	7	10	6	22
		Children		5	3	—	15	23	21	5	2
Condition not ascertained during the year		—	—	—	—	—	—	—	—	—	—
Total on Dispensary Register on 31st December		17	9	10	27	63	46	16	8	29	99
Transferred to Pulmonary		—	2	—	3	5	4	1	—	5	1
Discharged as recovered		Adults		—	—	3	2	5	—	1	1
Lost sight of, or removed from Dispensary Register		M.	—	3	2	5	—	—	—	—	—
Dead		F.	1	2	1	2	6	—	—	—	—
Total written off Dispensary Register		17	10	8	12	47	10	8	2	11	31
GRAND TOTALS		34	19	18	39	110	56	24	10	40	130

Not now on Dispensary Register
and reasons for removal therefrom

Lost sight of, or removed from Dispensary Register		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Dead		4	1	1	—	6	3	—	1	5	2
Children		—	1	1	3	5	3	2	—	1	1
Total written off Dispensary Register		17	10	8	12	47	10	8	2	11	31

Remaining on Dispensary Register
at end of year

SUMMARY.

1. No less than 86 per cent. of the total number notified in the City as suffering from pulmonary tuberculosis were examined at the Centre.
2. 1,063 patients were visited and examined in their own homes by the Medical Staff.
3. During the year 5,871 screen examinations were made in the radiological section, and films were taken in 2,069 cases.
4. Amongst new patients suffering from pulmonary tuberculosis 55.2 per cent. of the adults presented tubercle bacilli in their sputum, and 4.6 per cent. of the children.
5. Of the 1,030 primary cases suffering from pulmonary tuberculosis examined during the year, 22.4 per cent. were classified as Group I; 44.0 per cent. were classified as Group II; and 33.6 per cent. as Group III.
6. Of the patients treated during the periods 1913-1934, some 11,745 presented tubercle bacilli in their sputum. Of this number 26 per cent. are known to be still alive; 66 per cent. are known to be dead, and 8 per cent. have been lost sight of.
7. During the same periods, 12,690 patients whose sputum contained no tubercle bacilli were treated. Of this number 63 per cent. are known to be alive; 20 per cent. are known to be dead, and 17 per cent. have been lost sight of.
8. During this period (1913-1934) 1,307 patients suffering from non-pulmonary tuberculosis were treated. Of this number 75 per cent. are known to be still alive; 13.5 per cent. are known to be dead, and 11.5 per cent. have been lost sight of.

TOTAL NUMBERS TREATED IN SANATORIA AND DURATION OF STAY.

During the year 1934, there were 1,741 patients discharged from all the Sanatoria. Included in this number are 168 patients suffering from non-pulmonary tuberculosis who were treated in Institutions subsidised by the Health Department. Of the 1,741 patients, 815 were adult males, 567 were adult females, and 359 were children.

The average duration of stay, excluding those admitted for observation and who, proving negative, remained only for a short time, and excluding those "hospital" cases with advanced disease who died within a few days of their admission, was 115.5 days for adult males, 109.2 days for adult females, 191.1 days for male children, and 196.7 days for female children.

OCCUPATIONAL THERAPY IN SANATORIA.

In the municipal Sanatoria particular attention is paid to the question of occupational therapy with the object of interesting and employing suitably a certain number of the patients whose condition admits of it. The fitness of the patient to engage in occupational therapy is always judged by the medical officer, who has the patient under constant supervision. The occupation to be followed and the number of hours to be devoted to it are both decided upon by the doctor after careful consideration. At Salterley Grange Sanatorium, the physical condition of the patients is usually so good, and their disease so early that temporary employment suitable to their needs can be found in the gardens, and upon the estate. At West Heath and Yardley Green Road Sanatoria, particularly the latter, facilities for occupational therapy have existed for many years. At West Heath the patients are employed in basket making. Patients at Romsley Hill Sanatorium are instructed in basket and leather work.

At Yardley Green Road Sanatorium patients are instructed in basket making, leather work of different kinds, and in mat making, etc., and considerable development has taken place here during recent years.

It should be noted that the children attending the Sanatorium School at Yardley Green Road are taught various forms of handcraft work, including leather work, pewter work, raffia work, basket making, etc. Many children who are confined to bed are also taught handcrafts.

RESULTS OF TREATMENT OF PATIENTS DISCHARGED FROM RESIDENTIAL INSTITUTIONS
DURING THE YEAR 1933.

Classification on admission to the Institution.	Condition at time of discharge.	Duration of Residential Treatment in the Institutions.												Totals.	Grand Totals		
		* Under 3 months but exceeding 28 days.			3-6 months.			6-12 months.			More than 12 months.						
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
PULMONARY TUBERCULOSIS.	Quiescent ...	26	11	2	9	14	—	8	1	3	1	1	3	44	27	8	79
	Not quiescent	84	56	26	28	24	33	11	2	30	1	—	10	124	82	99	305
	Died in Institution	2	4	—	3	2	—	—	1	—	1	—	—	6	7	—	13
GROUP I.	Quiescent ...	—	1	—	1	1	—	—	—	—	—	—	—	1	2	—	3
	Not quiescent	7	5	—	10	4	—	3	3	—	—	—	—	20	12	—	32
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
GROUP II.	Quiescent ...	3	1	—	1	5	—	1	—	—	—	—	—	5	6	—	11
	Not quiescent	96	48	—	62	46	2	28	26	2	2	4	—	188	124	4	316
	Died in Institution	9	3	—	12	6	—	5	5	1	2	2	—	28	16	1	45
GROUP III.	Quiescent ...	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	1
	Not quiescent	92	44	—	41	28	—	22	13	—	5	3	1	160	88	1	249
	Died in Institution	32	21	—	24	21	—	9	6	1	6	—	1	71	48	2	121
TOTALS (Pulmonary) ...		351	194	28	192	151	35	87	57	37	18	10	15	648	412	115	1175
Non-Pulmonary Tuberculosis.	Quiescent ...	2	4	4	1	3	4	—	4	5	2	4	18	5	15	31	51
	Not quiescent	1	3	23	1	3	10	3	—	7	1	4	13	6	10	53	69
	Died in Institution	1	1	—	—	—	—	1	—	1	—	—	—	2	1	1	4
ABDOM- INAL.	Quiescent ...	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	1
	Not quiescent	2	3	1	3	5	—	—	4	3	—	1	—	5	13	4	22
	Died in Institution	—	—	1	—	1	—	—	—	—	—	—	—	—	1	1	2
OTHER ORGANS.	Quiescent ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Not quiescent	1	2	—	—	3	1	4	2	3	—	1	1	5	8	5	18
	Died in Institution	—	—	—	—	—	—	2	—	—	1	—	—	3	—	—	3
PERIPH- ERAL GLANDS.	Quiescent ...	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
	Not quiescent	—	1	1	—	1	7	—	—	2	—	—	—	—	2	10	12
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTALS (Non-Pulmonary) ...		8	14	30	5	16	23	10	10	21	4	10	32	27	50	106	183

Note.—"Quiescent" cases are those which have no symptoms of tuberculosis, and no signs of tuberculous disease except such as are compatible with a completely healed lesion, and in which sputum, if present, is free from tubercle bacilli.

PATIENTS ADMITTED TO SANATORIA FOR OBSERVATION AND INVESTIGATION.

The beds for the purpose of observation are at Yardley Green Road Sanatorium. Observation patients are those who, after careful and repeated examinations at the Centre, are found to be indefinite, either as to the absence or presence of tuberculosis or as to its activity or otherwise when present, and are usually admitted for a period varying from two to four weeks. Of the 1,573 patients discharged from the Sanatoria, 225 or 14.3 per cent. were admitted primarily for observation to Yardley Green Road Sanatorium. The medical findings are shown in the following table:

Diagnosis on discharge from observation.	For Pulmonary Tuberculosis.						For Non-pulmonary Tuberculosis.						TOTALS.		
	Stay under 4 weeks.			Stay over 4 weeks.			Stay under 4 weeks.			Stay over 4 weeks.					
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous ...	6	6	24	5	5	18	1	—	—	—	—	3	12	11	45
Non-Tuberculous ...	14	6	34	31	20	34	3	—	2	—	—	4	48	26	74
Doubtful	2	1	4	—	—	—	1	—	1	—	—	—	3	1	5
TOTALS ...	22	13	62	36	25	52	5	—	3	—	—	7	63	38	124

CLASSIFICATION OF PATIENTS' DISEASE.

In this table the patients are scheduled according to the classification of the Ministry of Health, as follows:—

Group I. Cases with slight constitutional disturbance, if any, e.g., there should not be marked acceleration of pulse nor elevation of temperature, except of very transient duration; gastro-intestinal disturbance or emaciation, if present, should not be excessive. The obvious physical signs should be of very limited extent, as follows:—Either present in one lobe only, and in the case of an apical lesion of one upper lobe not extending below the second rib in front and not exceeding an equivalent area in any one lobe; or where these physical signs are present in more than one lobe, they should be limited to the apices of the upper lobes and should not extend below the clavicle and the spine of the scapula.

No complication (tuberculous or otherwise) of prognostic gravity should be present. A small area of dry pleurisy should not exclude a case from this group.

Group III. Cases with profound systemic disturbance or constitutional deterioration; with marked impairment of function either local or general, and with little or no prospect of recovery. All cases with grave complications whether tuberculous or not, should be classified in this Group, e.g., diabetes, tuberculosis of larynx or intestines, etc.

Group II. All cases which cannot be placed in Group I and III.

Patients suffering from non-pulmonary tuberculosis are classified according to the site of the lesion and are placed under Group IV.

SPUTUM RESULTS AFTER SANATORIUM TREATMENT.

Of the 1,268 adult patients discharged from the Sanatoria suffering from pulmonary tuberculosis during the year, 886 or 69.9 per cent. presented tubercle bacilli in their sputum whilst in the Sanatoria.

Sanatoria	No sputum persisting T.B.—	No sputum becoming T.B.+	No sputum persisting T.B.—	T.B.— persisting T.B.+	T.B.— becoming T.B.+	T.B.— becoming T.B.+	T.B. + no sputum	T.B. + persisting sputum	T.B. + becoming T.B.—	T.B. + becoming T.B. no sputum
Yardley Green Road Sanatorium										
	75	4	1	85	3	18	327	5	14	
Romsley Hill Sanatorium	16	3	—	40	—	3	159	31	2	
Salterley Grange Sanatorium	47	—	—	12	—	15	61	8	34	
West Heath Sanatorium	26	2	1	30	1	6	217	14	8	
	164	9	2	167	4	42	764	58	58	

OCCUPATIONS.

In the following table the occupations of both male and female patients are shown:—

		Males.	Females
Out-door occupations	...	...	—
Domestic Occupations	...	...	248
Sedentary Occupations	...	...	54
Commercial Occupations	...	...	16
Engineering Occupations	...	...	22
Metal Trades	...	...	153
Building Trade	...	...	46
Other Trades	...	...	77
		168	46
		217	74
		752	516

GAIN OR LOSS IN WEIGHT.

Amongst a total of 1,268 patients discharged from Sanatoria after treatment, many of whom were advanced hospital cases admitted for the purpose of prophylaxis, 91 or 7.2 per cent. remained stationary, and 1,086 or 85.6 per cent. gained weight in amounts varying from 1 to 40 lbs.

WORKING CAPACITY OF PATIENTS TREATED IN SANATORIA.

The working capacity of patients is shown in the following tables:—

	Adult Males.	Adult Females.	Children.	Totals.
Unimpaired capacity for work becoming impaired	...	—	—	—
Impaired capacity for work becoming unimpaired	...	32	27	92
Impaired capacity for work becoming totally incapacitated	...	27	17	48
Impaired capacity for work persisting	...	377	225	688
Total incapacity for work becoming impaired	...	117	99	227
Total incapacity for work becoming unimpaired	...	6	5	15
Total incapacity for work persisting	...	30	31	66
Died in Sanatoria	...	164	112	281
	753	516	148	1,417

SUMMARY.

1. The average duration of patients' stay for all the Sanatoria was 115.5 days for adult males; 109.2 days for adult females; 191.1 days for male children; and 196.7 days for female children.
2. Of the patients from all Sanatoria no less than 14.3 per cent. passed through the observation beds at Yardley Green Road Sanatorium.
3. Over 35 per cent. of the patients were in Group III; 41.4 per cent. were in Group II; 16.5 per cent. were in Group I; and 6.5 per cent. were in Group IV.
4. There were 69.9 per cent. of all patients discharged from Sanatoria who presented tubercle bacilli in their sputum whilst in the Sanatorium.
5. Over 1,086 or 85.6 per cent. of all patients discharged from Sanatoria gained weight in amounts varying from 1 to 40 lbs.
6. Some 354 patients died in "hospital" beds in the various Sanatoria and Hospitals. This represents 43.4 per cent. of the total deaths in the city during the year, so far as tuberculosis is concerned.

TREATMENT IN THE LIGHT CLINIC.

PATIENTS COMPLETING TREATMENT DURING 1934.

The total number of patients completing a satisfactory course of treatment during the year 1934, was 64. This number includes 15 adult males, 21 adult females, 16 male children, and 12 female children.

These completed cases consisted of:—

	Adult Males.	Adult Females.	Male Children.	Female Children.
Tuberculous Joints and Bones	...	8	4	2
Tuberculosis of Abdomen	...	—	3	1
Cervical Adenitis	...	2	9	7
Lupus	...	1	—	2
Sinus	...	4	1	—
Other organs	...	—	1	—
	15	21	16	12

PATIENTS CONTINUING TREATMENT.

On the 31st December, 1934, 146 patients were continuing treatment in the Light Clinic and many showed an improvement in their condition.

AFTER CARE.

In the following table, the results of treatment are set out in detailed way, the past patients being kept under supervision and examined from time to time to ascertain what is their condition.

Treatment by means of artificial light must not be regarded as a complete treatment in itself and should always be associated with other forms of treatment.

PATIENTS WHO SATISFACTORILY COMPLETED A COURSE OF LIGHT TREATMENT PREVIOUS TO 1934

PATIENTS WHO SATISFACTORILY COMPLETED A COURSE OF LIGHT TREATMENT PREVIOUS TO 1934.

		1929				1930				1931				1932				1933			
		RECOVERED		ARRESTED																	
Condition at the time of last record made during the year, 1933.		Adults		Adults																	
M.		M.		M.		M.		M.		M.		M.		M.		M.		M.		M.	
F.		F.		F.		F.		F.		F.		F.		F.		F.		F.		F.	
RECOVERED		Adults		Adults																	
" "		Children		Children																	
ARRESTED		Adults		Adults																	
" "		Children		Children																	
QUIESCENT		Adults		Adults																	
" "		Children		Children																	
NOT QUIESCENT		Adults		Adults																	
DEAD		Adults		Adults																	
LOST SIGHT OF, etc.		Adults		Adults																	
CHILDREN		Adults		Adults																	
TOTALS		4		7		20		-		6		34		13		-		22		-	
BONES AND JOINTS		-		-		-		-		-		-		-		-		-		-	
ABDOMINAL		-		-		-		-		-		-		-		-		-		-	
LARYNX AND P.T.		-		-		-		-		-		-		-		-		-		-	
PERIPHERAL GLANDS		-		-		-		-		-		-		-		-		-		-	
LUPUS		-		-		-		-		-		-		-		-		-		-	
OTHER ORGANS		-		-		-		-		-		-		-		-		-		-	
BONES AND JOINTS		-		-		-		-		-		-		-		-		-		-	
ABDOMINAL		-		-		-		-		-		-		-		-		-		-	
LARYNX AND P.T.		-		-		-		-		-		-		-		-		-		-	
PERIPHERAL GLANDS		-		-		-		-		-		-		-		-		-		-	
LUPUS		-		-		-		-		-		-		-		-		-		-	
OTHER ORGANS		-		-		-		-		-		-		-		-		-		-	
BONES AND JOINTS		-		-		-		-		-		-		-		-		-		-	
ABDOMINAL		-		-		-		-		-		-		-		-		-		-	
LARYNX AND P.T.		-		-		-		-		-		-		-		-		-		-	
PERIPHERAL GLANDS		-		-		-		-		-		-		-		-		-		-	
LUPUS		-		-		-		-		-		-		-		-		-		-	
OTHER ORGANS		-		-		-		-		-		-		-		-		-		-	
BONES AND JOINTS		-		-		-		-		-		-		-		-		-		-	
ABDOMINAL		-		-		-		-		-		-		-		-		-		-	
LARYNX AND P.T.		-		-		-		-		-		-		-		-		-		-	
PERIPHERAL GLANDS		-		-		-		-		-		-		-		-		-		-	
LUPUS		-		-		-		-		-		-		-		-		-		-	
OTHER ORGANS		-		-		-		-		-		-		-		-		-		-	
BONES AND JOINTS		-		-																	

VENEREAL DISEASES.

The City Council maintain three centres for the treatment of venereal diseases, one for men, women and children at the Birmingham General Hospital, one for children at the Children's Hospital, and one for mothers and young children in the same building as that occupied as a Maternity and Child Welfare Centre in Aston Street. In addition cases of venereal disease come under treatment at the Venereal Diseases Clinic maintained in connection with the Women's Venereal Diseases Ward in the Birmingham Infirmary.

At these centres 568 new cases of syphilis, 25 of soft chancre, 1,077 of gonorrhoea and 1,431 cases suffering from conditions other than venereal disease were seen in 1934, as follows:—

New Cases.					
		Syphilis.	Soft Chancre.	Gonorrhoea.	Other Conditions.
General Hospital	....	455	25	942	912
Children's Hospital	....	19	—	4	22
Aston Street Centre	....	49	—	65	485
Birmingham Infirmary	....	45	—	66	12
Total	....	568	25	1,077	1,431

The new cases coming under treatment in previous years have been as follows:—

	Syphilis.	Soft Chancre.	Gonorrhoea.	Other Conditions.
1926	563	2	909	729
1927	662	4	1,007	861
1928	631	10	1,193	920
1929	549	9	1,265	804
1930	604	14	1,340	1,076
1931	544	1	1,060	1,084
1932	554	11	1,128	1,109
1933	499	19	1,037	1,248
1934	568*	25*	1,077*	1,431*

The total attendances for the last seven years were:—

1928	78,261
1929	78,098
1930	88,589
1931	93,280
1932	100,313
1933	103,925
1934	110,716*

Further particulars of the work done at the Centres last year will be found in the statement below:—

		Syphilis.	Soft Chancre.	Gonorrhoea.	Other Conditions.
No. of cases under treatment, January 1st, 1934	....	1,228*	1*	875*	9*
New cases under treatment during year	....	568*	25*	1,077*	1,431*
Total attendances	....	33,219*	220*	71,957*	5,320*
Number discharged after completion of treatment and observation	....	211*	8*	519*	1,361*
Number transferred to other centres	....	142*	1*	244*	—
Number who ceased to attend:—					
Before completion of treatment	....	257*	—*	360*	—
After completion of treatment, but before final tests as to cure	....	44*	7*	168*	—

*These figures include those for the Birmingham Infirmary for the first time.

A grant of £420 was paid by the Public Health Committee towards the expenses of the Birmingham Branch of the British Social Hygiene Council. The report of this Branch shows that lectures and addresses are given to a steadily growing audience. During the year these addresses were given to approximately 30,000 persons, the talks including general addresses in factories and to social and religious organisations, and special instructional lectures to a large variety of special bodies. A large amount of personal work was also done by the officers of the Branch.

During the autumn arrangements were made for the exhibition of the educational film "Damaged Lives," under the joint auspices of the Public Health Committee and the Birmingham Branch of the Social Hygiene Council. A total of 51,000 persons saw the film during the three weeks of its exhibition. The film was of great educational value, both in the direction of instruction in the physiology of sex and in that of warning as to dangers associated with failure in self control. No marked effect was produced on the number of new cases or of defaulters attending the various Venereal Diseases Clinics.

VII. MATERNITY AND CHILD WELFARE.

(Report by Dr. ETHEL CASSIE).

CHIEF STATISTICS, 1934.

Birth-Rate 15.3 per 1,000. (15,681 live births).

Illegitimate Birth-Rate 3.7 per cent. (574 illegitimate births).

Infant Mortality Rate 68 per 1,000 live births (1,061 deaths).

Stillbirths 36 per 1,000 live and stillbirths (580 stillbirths).

Neo-natal Mortality 33 per 1,000 births (511 deaths). (Infant deaths in the first four weeks of life).

Deaths from one to two years 12.2 per 1,000 of the age population (171 deaths).

Deaths from two to five years 3.9 per 1,000 of the age population (184 deaths).

Maternal Mortality in Childbirth 3.8 per 1,000 live births (60 deaths).

Child Population under five (estimated) 74,238.

GENERAL COMMENTS.

Births.

There has been a small rise in the birth-rate, the rise being effective in the outer and middle wards only. The rate in the central wards corresponds with that of 1933.

Infant and Child Mortality.

The *infant mortality* has risen from 66 per 1,000 births in 1933 to 68 in 1934.

While this rise is disappointing in contrast with the steady fall in the preceding three years, it is not to be regarded as of serious import.

The rise represents an increase of 63 deaths in a total of 1,061 deaths under the age of one year, as compared with the figure for 1933.

Of this excess of 63 deaths 47 occurred during the "neo-natal" period under the age of one month, and 16 between one and twelve months of age.

Of the excess of 47 deaths below the age of one month the items chiefly involved were premature births (12+), injury at birth (24+) and other causes (11+). In a number of items the mortality was lower than in 1933. The increase in premature birth and injury at birth may be in part accounted for by a decrease of 11 in stillbirths, *i.e.*, by a *postponement* of death to the stage of or after birth. Among "other causes" in the neo-natal period there was an altogether unusual prevalence of septic infection of the nose and throat in younger as in older infants and young children, giving a quite exceptional mortality from this cause in 1934.

In regard to the excess of mortality between the ages of one and twelve months, this arises from a small number of factors which caused an excess mortality, the mortality in most directions being less than in 1933. The three main adverse factors were whooping-cough, which caused a heavy toll, a somewhat higher incidence of enteritis, and acute diseases of the middle ear, with other general septic infections, largely of the nose and throat, which played an exceptionally prominent part in the mortality, particularly during the first four months of the year.

The death-rate among *illegitimate infants* has fallen somewhat. Particulars are given subsequently.

Some further fall has occurred in the death-rate of *children from one to two years*. No corresponding reduction, but a slight rise, in the rate from *two to five years* is recorded, mainly owing to an increase in the deaths from diphtheria and from whooping cough.

Maternal Mortality in Childbirth.

The rate has risen somewhat, both in Birmingham and in England and Wales as a whole. The maternal mortality in Birmingham continues to maintain a low level in comparison with that in most other large cities in the country. The rise to 3.83 in 1934 as compared with 3.72 in 1933, is related wholly to an increase from 25 in 1933 to 29 in 1934 of the deaths from puerperal sepsis.

Puerperal Sepsis and Pyrexia.

Detailed information has been obtained in all notified cases. There has been no definite spread of infection either in the practice of midwives or institutions.

BIRTHS.

During 1934 there were 15,681 live births (8,090 males and 7,591 females) belonging to Birmingham, and 580 stillbirths, making a total of 16,261. The live births number 627 more than in the previous year, and were equal to a birth-rate of 15.3 against one of 14.7 in 1933. The birth-rates of the past 34 years are given in Table I in the Appendix. It will be seen that except for fluctuations during the war period, there was a steady decline in the rate from 31.4 in 1901 to 14.7 in 1933, but in 1934 a small increase was recorded.

The Birmingham birth-rate is among the higher rates in the list for the great towns, as will be seen from the figures below:—

BIRTH-RATES IN LARGEST TOWNS.

London	...	...	...	...	...	13.4	per 1,000
Glasgow	...	...	...	...	...	19.6	"
Birmingham	...	...	...	...	...	15.3	"
Liverpool	...	...	...	...	...	20.3	"
Manchester	...	...	...	...	...	14.8	"
Sheffield	...	...	...	...	...	14.5	"
Leeds	...	...	...	...	...	14.8	"
Edinburgh	...	...	...	...	...	15.7	"
Bristol	...	...	...	...	...	13.9	"
Hull	...	...	...	...	...	18.3	"
Bradford	...	...	...	...	...	13.7	"

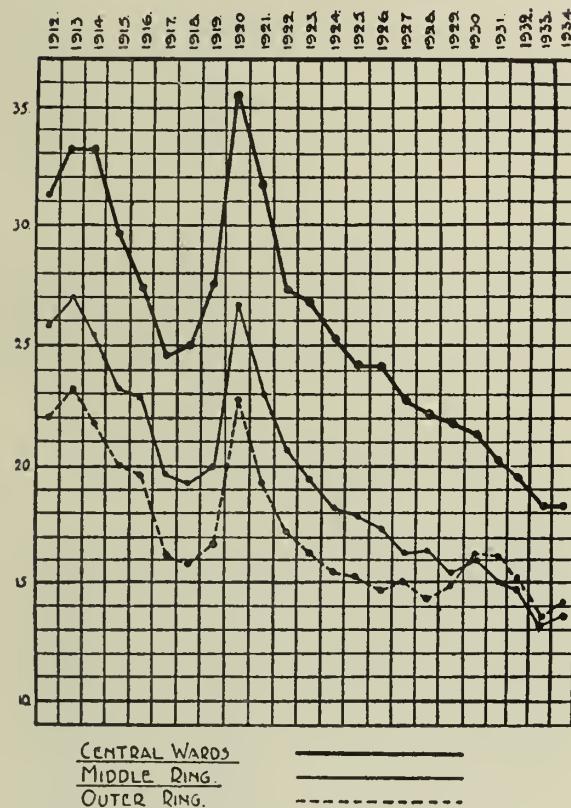
The birth-rate varied greatly in different parts of the City, as shown in the following table:—

BIRTH-RATES IN WARDS.

	Ward	Birth rate	
Central Wards	St. Paul's	18.5	1934 Average 18.2 1933 Average 18.2
	St. Mary's	20.2	
	Duddeston and Nechells	19.8	
	St. Bartholomew's	17.5	
	St. Martin's and Deritend	19.2	
	Market Hall	15.7	
Middle Ring	Ladywood	16.8	1934 Average 13.6 1933 Average 13.1
	Lozells	14.7	
	Aston	16.5	
	Washwood Heath	14.1	
	Saltley	12.2	
	Small Heath	12.6	
	Sparkbrook	15.2	
	Balsall Heath	13.5	
	Edgbaston	9.0	
Outer Ring	Rotton Park	14.2	1934 Average 14.1 1933 Average 13.4
	All Saints	14.0	
	Soho	10.0	
	Sandwell	11.4	
	Handsworth	11.0	
	Perry Barr	23.8	
	Erdington North	13.2	
	Erdington South	15.1	
	Yardley	16.0	
	Acocks Green	15.1	
	Sparkhill	13.8	
	Moseley and King's Heath	11.8	
	Selly Oak	12.6	
	King's Norton	11.4	
	Northfield	20.9	
	Harborne	11.2	

The movements in the birth-rate in the three groups of wards are indicated in the diagram below.

BIRTH RATE IN GROUPS OF WARDS.



ILLEGITIMATE BIRTHS.

During 1934 there were 574 illegitimate births belonging to Birmingham. Of these 527 occurred in the City and 47 in other places. The illegitimate births were in the proportion of 36.6 per 1,000 of the total live births, as against 36.8 for 1933.

The figures for the past 10 years were as follows:—

	Illegitimate Births per 1,000 live births.		
1925	33.0
1926	33.9
1927	36.5
1928	33.6
1929	36.6
1930	35.8
1931	33.8
1932	32.9
1933	36.8
1934	36.6

INFANT AND CHILD MORTALITY.

The deaths of infants under one year of age numbered 1,061 and were equal to an infant mortality rate of 68 per 1,000 births.

The infant mortality rates for a number of years are shown in the table below:—

INFANT MORTALITY RATE.

	Birmingham.	England and Wales.
1901-05	157	138
1906-10	131	117
1911-15	126	110
1916-20	94	90
1921-25	80	76
1926-30	70	68
1925	78	75
1926	73	70
1927	75	70
1928	65	65
1929	79	74
1930	60	60
1931	71	66
1932	67	65
1933	66	64
1934	68	59

The infant mortality rates in Birmingham and ten of the largest British towns for 1924 and 1934 are shown in the subjoined table:—

	1924	1934
London	69	67 per 1,000
Glasgow	119	98 "
Birmingham	83	68 "
Liverpool	103	81 "
Manchester	100	69 "
Sheffield	89	55 "
Leeds	108	71 "
Edinburgh	89	62 "
Bristol	71	46 "
Hull	87	63 "
Bradford	92	62 "

INFANT MORTALITY IN WARDS.

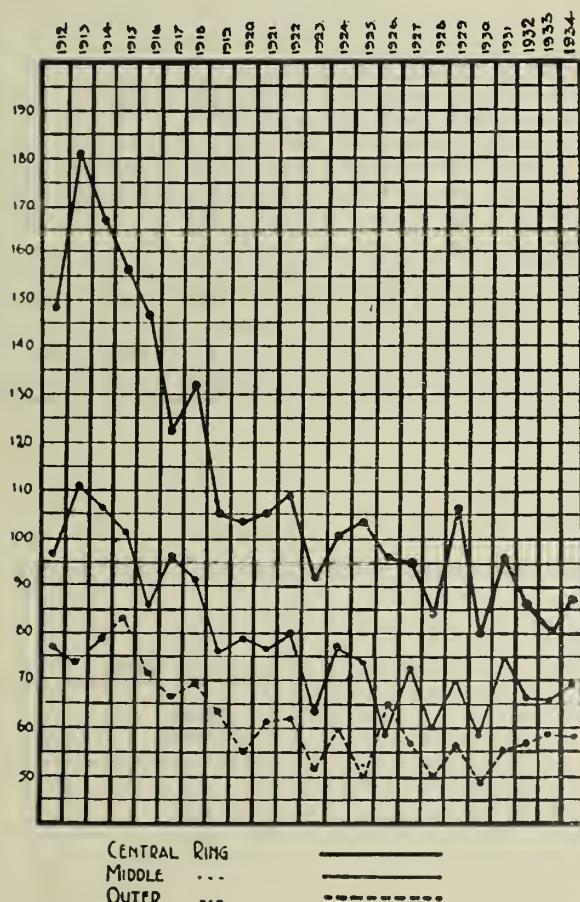
The appended table shows the infant mortality rate in each of the wards of the City in 1934. The average mortality in the groups of wards ten years ago is given for comparison.

Central Wards :	St. Paul's	66	Average : In 1934— 87 In 1924—101
	St. Mary's	...	...	...	...	85
	Duddeston and Nechells	...	...	...	...	87
	St. Bartholomew's	...	...	...	...	101
	St. Martin's and Deritend	...	...	...	...	81
	Market Hall	...	...	...	...	106
	Ladywood	...	...	...	...	84
Middle Ring :	Lozells	77	Average : In 1934— 69 In 1924— 77
	Aston	...	...	...	...	70
	Washwood Heath	...	...	...	...	56
	Saltley	...	...	...	...	42
	Small Heath	...	...	...	...	48
	Sparkbrook	...	...	...	...	112
	Balsall Heath	...	...	...	...	68
	Edgbaston	...	...	...	...	72
	Rotton Park	...	...	...	...	60
	All Saints	...	...	...	...	83

Outer Ring :	Soho	68	Average : In 1934— 58 In 1924— 60
	Sandwell	...	...	...	...	...	55
	Handsworth	...	...	...	...	...	63
	Perry Barr	...	...	...	...	...	48
	Erdington North	...	...	...	...	...	87
	Erdington South	...	...	...	...	...	52
	Yardley	...	...	...	...	...	34
	Acocks Green	...	...	...	...	...	62
	Sparkhill	...	...	...	...	...	64
	Moseley and King's Heath	...	...	...	...	...	66
	Selly Oak	...	...	...	...	...	44
	King's Norton	...	...	...	...	...	49
	Northfield	...	...	...	...	...	67
	Harborne	...	...	...	...	...	50

The following diagram shows the striking fall in infantile mortality in each of the three groups of wards during the past 23 years. It will be noted that the decrease has been much more marked in the Central areas than in the other parts of the town, and that the range in the sectional rates last year was only from 58 to 87, whereas in 1913 it was from 74 to 181.

INFANT MORTALITY RATES.



CENTRAL RING
MIDDLE ...
OUTER ...

INFANTILE MORTALITY DURING THE YEAR, 1934.

Deaths from stated Causes in Weeks and Months under One Year of Age.

Cause of Death.	Weeks.				Total under One Month.	Months.				Total Deaths under One Year.
	0—	1—	2—	3—		1—	3—	6—	9—	
Measles	—	—	—	—	—	—	—	1	3	4
Scarlet Fever	—	—	—	—	—	—	—	2	—	2
Whooping Cough	—	—	—	—	—	12	13	14	13	52
Diphtheria and Croup	—	—	1	1	2	1	—	1	—	4
Influenza	—	—	—	—	—	1	2	1	2	6
Tuberculous Meningitis ...	—	—	—	—	—	—	—	—	—	—
Abdominal Tuberculosis ...	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases	—	—	—	—	—	—	2	3	2	7
Rickets	—	—	—	—	—	1	5	1	1	8
Syphilis	1	—	—	—	1	2	1	—	—	4
Cerebro-Spinal Fever ...	—	—	—	—	—	1	5	3	2	11
Meningitis (not Tuberculous) 1	—	—	—	1	2	—	4	3	1	10
Convulsions	2	1	1	—	4	—	—	—	—	4
Bronchitis	1	1	2	1	5	6	1	2	2	16
Pneumonia (all forms) ...	2	3	3	4	12	36	38	30	28	144
Gastritis	—	—	—	—	—	—	—	—	—	—
Diarrhoea, Enteritis, etc. ...	—	1	—	1	2	35	48	27	15	127
Congenital Malformations ...	46	12	7	3	68	21	7	1	—	97
Premature Birth	244	21	8	7	280	30	—	—	—	310
Atrophy, Debility and										
Marasmus	7	1	1	—	9	8	2	1	—	20
Atelectasis	20	1	—	—	21	—	1	—	—	22
Injury at Birth	56	1	1	—	58	1	2	—	—	61
Neglect (under 3 months) ...	4	—	—	—	4	—	—	—	—	4
Suffocation (overlying) ...	—	—	—	—	—	—	—	—	—	—
Other Causes	21	9	4	9	43	30	20	34	21	148
All Causes	405	51	28	27	511	185	151	124	90	1061
Rate per 1,000 Births	25.8	3.3	1.8	1.7	32.6	11.8	9.6	7.9	5.7	68

INFANTS' DEATHS FROM " OTHER CAUSES." (See preceding Table).

	1934.		1933.	
	Under 1 Month.	Total.	Under 1 Month.	Total.
Acute otitis media	1	33	—	7
,, mastoiditis	—	4	—	—
,, septic infections ...	12	36	5	21
New growths	—	3	2	4
Accidents	—	10	4	12
Congenital diseases ...	10	19	1	9
Other conditions	20	43	8	32
	43	148	20	85

The next table shows the number of infant deaths from the more prominent causes of death during the last four years.

INFANT DEATHS FROM DIFFERENT CAUSES.

		1934.	1933.	1932.	1931.
Measles	...	4	18	9	45
Whooping cough	...	52	14	60	37
Influenza	...	6	8	11	16
Tuberculosis	...	7	14	8	23
Convulsions	...	4	10	17	7
Bronchitis	...	16	36	19	41
Pneumonia	...	144	185	195	218
Diarrhoea and enteritis	...	127	106	122	135
Suffocation (overlying)	...	—	3	4	12
Congenital malformation	...	97	113	96	98
Premature birth	...	310	295	323	353
Injury at birth	...	61	36	48	45
Atrophy, debility and marasmus	...	20	20	30	56
Other causes	...	213	140	178	131
Total		1,061	998	1,120	1,217

NEO-NATAL MORTALITY.

During the last 23 years there has been a decline in the mortality rate amongst children under one month of age, as will be seen from the table below. The rise in 1934 by comparison with 1933 has been referred to in a preceding page:—

	BIRMINGHAM.		ENGLAND AND WALES.	
	Rate per 1,000 live births.	Average.	Rate per 1,000 live births.	Average.
1912	42.1		38	
1913	41.0		39	
1914	42.3		39	
1915	37.0	40.6	38	38
1916	35.8		37	
1917	38.3		37	
1918	35.7		36	
1919	37.1		40	
1920	34.4		35	
1921	35.0		35	
1922	34.4		34	
1923	31.1		32	
1924	34.6		33	
1925	32.2		32	
1926	31.1		32	
1927	33.3		32	
1928	29.7		31	
1929	32.3		33	
1930	28.7		31	
1931	32.2		32	
1932	32.7		32	
1933	30.8	32.1	32	32
1934	32.6		—	

INFANT MORTALITY AND ILLEGITIMACY.

The following figures show the relative mortality among legitimate and illegitimate infants for the past year :—

	No. of Births.	Deaths under 1 year.	Infant mortality per 1,000.
Legitimate	... 15,107	1,000	66
Illegitimate	... 574	61	106

The infant mortality rates during recent years were as follows :—

	Infant Mortality Rates per 1,000 Births.			
	Legitimate.	Average.	Illegitimate.	Average.
1921	81		135	
1922	82		178	
1923	69		151	
1924	81		142	
		78		151
1925	76		139	
1926	70		150	
1927	73		135	
1928	63		111	
1929	77		128	
		72		133
1930	58		117	
1931	70		122	
1932	65		125	
1933	64		119	
1934	66		106	
		65		118

While the higher death-rate among the illegitimate infants is still a cause of concern the steady improvement in this rate is encouraging.

STILLBIRTHS.

The net number of stillbirths for the year was 580, equal to 36 per 1,000 of the live and stillbirths.

Forty-one per cent. of the stillbirths in which information was obtained occurred in primiparae.

The percentage of illegitimate births among the stillbirths, where information was obtained, was 3.1 per cent. against 3.7 per cent. amongst live births.

A very high proportion of the stillbirths for which records are available were premature—276 out of 540 or 51 per cent; 140 out of 580 (24 per cent.) stillbirths occurred in the practice of midwives; of these 21 or 15 per cent. were in breech presentations as far as can be ascertained.

The following table shows the number of stillbirths over a number of years:—

	Stillbirths.	Average	Percentage of total live births.	Average.
1912	667		3.0	
1913	679		2.9	
1914	762		3.3	
1915	732		3.5	
1916	729		3.5	
1917	580		3.3	
1918	590		3.5	
1919	744		3.8	
1920	911		3.6	
1921	804		3.6	
1922	660		3.3	
1923	629		3.3	
1924	544		3.0	
1925	609		3.4	
1926	585		3.3	
1927	521		3.0	
1928	595		3.5	
1929	590		3.5	
1930	688		4.0	
1931	697		4.1	
1932	603		3.6	
1933	591		3.9	
1934	580		3.7	

DEATHS OF CHILDREN BETWEEN 1 AND 5 YEARS OLD.

These are set out in the table below, distinguishing those under 2 years from those over 2.

	1 to 2 years old, Average			2 to 5 years old, Average				
	1934.	1933.	1932.	1931.	1934.	1933.	1932.	1931.
Measles	10	37	25	64	4	16	15	46
Whooping cough	37	13	41	35	24	6	23	13
Diphtheria	3	2	4	7	25	10	9	11
Scarlet fever	4	1	2	0	5	3	2	2
Influenza	2	5	5	5	3	6	4	2
Tuberculosis	7	11	22	18	20	24	21	26
Nervous diseases	14	10	8	5	12	7	10	11
Bronchitis and pneumonia	53	66	71	91	32	27	22	53
Diarrhoea and enteritis	10	12	6	13	6	6	5	5
Other digestive diseases	7	6	3	2	12	13	10	12
Accidental deaths	6	2	8	7	23	23	18	18
All other causes	18	16	28	13	18	24	23	27
Total	171	181	223	260	184	165	162	226

The deaths under 2 years of age were thus somewhat less, while those over 2 years of age were somewhat higher than in the corresponding groups in 1933. The excess in the latter case was related mainly to severe mortality from whooping cough, and to a greater prevalence of diphtheria during 1934 with fatal results in a number of non-immunised toddlers.

The following table shows the deaths and death-rates among children between one and five years compared with the figures for previous years:—

	1—2 years Average		2—5 years Average.	
	Deaths.	Death-rate per 1,000.	Deaths.	Death-rate per 1,000.
1912—15	821	45.9	697	12.2
1916—20	579	32.2	568	9.9
1924—25	451	23.7	323	5.8
1926—30	309	19.3	238	4.9
1931—34	209	13.8	184	3.9

The figures show that a great reduction has occurred in the mortality amongst toddlers during recent years, a reduction of 70 per cent. being recorded in the death-rate from one to two years and of 68 per cent. in that for the age period two to five years.

MATERNAL MORTALITY IN CHILDBIRTH.

The deaths of women classed to pregnancy and child-bearing in Birmingham during 1934 numbered 60. The number of live births was 15,681, giving a maternal mortality rate per 1,000 births of 3.83.

The maternal mortality in previous years is shown in the table below:—

Puerperal Fever.	Deaths from		Rate per 1,000 live Births (total).		England and Wales.
	Puerperal Fever.	Other Puerperal Causes.	Birmingham.	England and Wales.	
1911	36	48	3.82	3.87	
1912	27	45	3.25	3.98	
1913	44	48	3.86	3.96	
1914	33	41	3.19	4.17	
1915	35	38	3.44	4.18	
1916	31	40	3.44	4.12	
1917	26	20	2.60	3.89	
1918	29	22	3.08	3.79	
1919	23	28	2.64	4.37	
1920	51	39	3.59	4.33	
1921	26	37	2.84	3.92	
1922	25	35	3.02	3.81	
1923	34	33	3.51	3.82	
1924	37	35	3.91	3.90	
1925	35	39	4.15	4.08	
1926	41	33	4.13	4.12	
1927	25	37	3.59	4.11	
1928	32	34	3.88	4.42	
1929	26	41	3.99	4.83	
1930	27	32	3.39	4.40	
1931	28	37	3.81	4.11	
1932	28	34	3.73	4.21	
1933	25	31	3.72	4.51	
1934	29	31	3.83	4.60	

The causes of deaths as given on the death certificates may be classified as follows:—

Puerperal sepsis (after confinement or abortion)	...	...	...	...	...	29
Puerperal haemorrhage	...	...	...	...	...	9
Albuminuria and convulsions	...	...	...	...	...	4
Accidents of pregnancy (abortion, ectopic gestation, etc.)	...	...	...	...	...	1
Embolism	...	...	...	...	...	6
Other causes	...	...	...	...	...	11

COMPARATIVE MATERNAL MORTALITY IN 11 LARGEST TOWNS.

	Deaths per 1,000 live Births from			
	Other	Puerperal Sepsis.	Puerperal Causes.	Total.
London	...	1.34	1.46	2.80
Glasgow	...	3.07	2.84	5.91
Birmingham	...	1.85	1.98	3.83
Liverpool	...	1.42	1.47	2.89
Manchester	...	1.14	3.32	4.46
Sheffield	...	3.85	2.66	6.51
Leeds	...	2.09	1.95	4.04
Edinburgh	...	2.60	2.60	5.20
Bristol	...	1.40	2.98	4.38
Hull	...	1.70	3.90	5.60
Bradford	...	1.99	3.73	5.72

MATERNAL MORTALITY ENQUIRY.

At the request of the Ministry of Health a medical enquiry has been made in the case of every maternal death in childbirth during each year since 1929. The information obtained during 1934 has been tabulated below.

Total deaths of women associated with pregnancy and child birth=75.

GROUPS.

I. Deaths from intercurrent disease	.....	.....	.....	.....	.....	.....	.....	.....	19
II. Deaths transferred to Birmingham (died outside city)	.....	.....	.....	.....	.....	.....	.....	.....	1
III. Deaths from child bearing (excluding intercurrent disease)	.....	.....	.....	.....	.....	.....	.....	.....	56
(a) Deaths from abortion	.....	.....	.....	.....	.....	.....	.....	14	
(b) " " puerperal sepsis	.....	.....	.....	.....	.....	.....	.....	18	
(c) " " toxæmia	.....	.....	.....	.....	.....	.....	.....	6	
(d) " " haemorrhage	.....	.....	.....	.....	.....	.....	.....	7	
(e) Other deaths	.....	.....	.....	.....	.....	.....	.....	11	
									56
									—

GROUP I. Deaths from intercurrent disease=Total 19.

Parity. Primiparae 4. Multiparae 14. Unknown 1. (Illegitimate 1).

Age-groups. Under 20=nil. 20-30=7. 30-40=10. Over 40=2.

Cause of death. Burns	.....	.....	.....	.....	.....	.....	.....	1
Meningitis	.....	.....	.....	.....	.....	.....	.....	1
Izal poisoning	.....	.....	.....	.....	.....	.....	.....	1
Diabetes	.....	.....	.....	.....	.....	.....	.....	1
Died under anaesthetic	.....	.....	.....	.....	.....	.....	.....	1
Pneumococcal peritonitis	.....	.....	.....	.....	.....	.....	.....	1
Pneumonia	.....	.....	.....	.....	.....	.....	.....	6
Septicaemia (non-pelvic in origin)	.....	.....	.....	.....	.....	.....	.....	2
Cardiac conditions	.....	.....	.....	.....	.....	.....	.....	4
Hysterotomy myomectomy	.....	.....	.....	.....	.....	.....	.....	1

Treated in hospital=16. Died in hospital=16.

Ante-natal care. None=5. Some=5. Sufficient=9.

Home conditions. Good=6. Fair=7. Poor=4. Destitute=2.

Period of Pregnancy. Full term=7. 36-40 weeks=1. 32-36 weeks=2. 28-32 weeks=2. 24-28 weeks=2. 20-24 weeks=0. Less than 20=5.

Death was apparently inevitable in 11 cases. In 6 cases more energetic measures *might* have saved the patient's life; in 2 of these the patient disregarded medical advice.

GROUP III. Deaths from child-bearing.

(a) Deaths from abortions. Total=14.

Parity. Primiparae=3. Multiparae=11. (Illegitimate=4).

Age-groups. Under 20=1. 20-30=4. 30-40=7. Over 40=2.

Cause of death. Septicaemia in all cases.

Abortion following operation	.....	.....	.....	.....	.....	1
Interference	.....	.....	.....	.....	.....	3
Probably interference	.....	.....	.....	.....	.....	10
						—
						14
						—

Treated in hospital	.....	.....	.....	.....	.....	13
Marked delay in treatment	.....	.....	.....	.....	.....	5

Home conditions. Good=1. Fair=7. Poor=5. Destitute=1.

Period of Pregnancy. Before 12 weeks=6. 12-16 weeks=4. 16-20 weeks=3. 20-24 weeks=0. 24-28 weeks=1.

(b), (c), (d). Deaths from Puerperal Sepsis, Toxaemia and Haemorrhage.

These are shown in the table following :—

MATERNAL DEATHS.

	Puerperal Sepsis. (b)	Toxaemia				Total.
		Eclampsia with Convulsions. (c1)	No Convulsions. (c2)	Haemorrhage. (d)		
TOTAL	18	3	3	7		
AGE GROUPS.						
Under 20 years	1	—	1	—	2	
20—30	6	2	1	3	12	
30—40	6	1	1	2	10	
Over 40	5	—	—	2	7	
PARITY.						
Primipara	5	2	3	2	12	
Multipara	13	1	—	5	19	
Not known	—	—	—	—	—	
HOME CONDITIONS.						
Good	6	2	1	—	9	
Fair	9	1	1	3	14	
Poor	3	—	1	4	8	
Destitute	—	—	—	—	—	
Illegitimate	3	—	—	—	3	
PERIOD IN PREGNANCY.						
Full Term	15	1	1	5	22	
Premature	3	2	2	2	9	
ANTE-NATAL CARE.						
None	1	—	—	—	1	
Some	7	2	2	4	15	
Sufficient	10	1	1	3	15	
ATTENDANCE AT DELIVERY						
Midwife	5	1 (To Hosp. after two days in Labour)	—	—	6	
Doctor	7 (One to Hosp. in Labour)	—	—	2	9	
Hospital	5	1	3 (2 unbooked)	4 (3 unbooked)	13 (5 unbooked)	
No attendance	1	—	—	—	1	
Undelivered	—	1	—	1	2	
TREATED IN HOSPITAL	17	2	3	6	28	

(e) Deaths from other causes = Total 11.

Causes of death :—

- (1) Ruptured ectopic gestation=1.
- (2) Ruptured uterus (difficult delivery)=1.
- (3) Pulmonary embolism=4.
- (4) Anaemia of pregnancy=1.
- (5) Obstetric shock=4. (3 after craniotomy).

In one case better ante-natal care and in three cases better management of labour might have prevented death.

Primiparae = 8.	Pulmonary Emboli	.....	3
	Ruptured Uterus	.....	1
	Ruptured Ectopic gestation	.....	1
	Obstetric shock	.....	3

Multiparae = 3.	Pulmonary Embolus	1
	Obstetric shock	1
	Anaemia of pregnancy	1

SUMMARY.	<i>Primiparae.</i>	<i>Multiparae.</i>
Abortions	3	11
Obstetric Causes	20	22
Intercurrent conditions	4	14 1 unknown
	27	47 1 unknown=75.

Three of the 14 deaths from abortion were certainly due, and 10 were probably due, to artificially induced abortion. The remaining one was the result of operative interference.

In 16 of the 42 obstetric deaths better ante-natal care might have saved the patient. In seven cases better conditions during labour and the puerperium might have prevented a fatal issue.

The 19 deaths from intercurrent disease have no real relation to child bearing, except the four cases of heart disease and one of diabetes, in which pregnancy was contra-indicated and was responsible for the patient's death.

PUERPERAL SEPSIS.

There were 113 cases of puerperal fever and 216 cases of puerperal pyrexia during the year, 16 being cases of persons residing outside the City but removed for confinement to Birmingham institutions.

In 318 instances of Birmingham residents detailed information was obtained. One hundred and fifty-seven cases were treated in hospital.

The number of cases in primiparae was 126; in multiparae 166. The parity was not known in 21 cases.

The period of pregnancy was as follows :—

Premature	...	...	...	...	18
Full term	...	...	...	...	240
Post mature	...	...	...	...	6
Abortions	...	...	...	...	43
No information	...	...	...	...	6
					313

Out of 313 cases of puerperal fever or pyrexia where information was obtained, 20 died, 9 following abortion.

Under the scheme arranged by the Maternity and Child Welfare Committee, a consultant was called in at home in 25 cases.

The ante-natal care in 278 cases where information was obtained was as follows :—

Doctor	...	...	...	...	...	...	56
Doctor and midwife	...	...	...	...	...	...	2
Doctor and hospital	...	...	...	...	...	...	1
Midwife	...	...	...	...	...	...	11
Midwife and Welfare Centre	...	...	...	...	...	...	2
Doctor and Welfare Centre	...	...	...	...	...	...	5
Welfare Centre	...	...	...	...	...	...	76
Hospitals	...	...	...	...	...	...	86
Nursing Homes	...	...	...	...	...	...	23
No ante-natal Care	...	...	...	...	...	...	16
							278

The attendance at the ante-natal clinics at Child Welfare Centres was 58 per cent. of all maternity cases.

OPHTHALMIA NEONATORUM.

558 cases of discharging eyes were notified to the Department during 1934, two of which were patients whose residence was outside the city. The vast majority of these were not ophthalmia neonatorum due to the gonococcus, but were reactions following the use of prophylactic treatment, or mild catarrhs. 38 cases were considered sufficiently severe to admit to the Eye Hospital Ward, while 100 were of moderate severity. In only one case was there any corneal damage, and this was a slight scar which will not impair vision.

This result is the best yet recorded, and the policy of ready admission to hospital is of great value.

PEMPHIGUS NEONATORUM.

Ten cases of pemphigus neonatorum were reported during 1934. Two were removed to hospital. There were no deaths.

MATERNITY AND CHILD WELFARE SERVICE.

HEALTH VISITING.

No. of Health Visitors—109.

Total visits paid—347,881.

The Health Visitors undertake home visiting for children under the age of five, ante-natal home visiting, and the visiting required for non-notifiable infectious disease and pneumonia. In order to cope with the outbreaks of infection in different localities, nine visitors are employed for specialised work in this connection, the general health visitors dealing with the sporadic cases in their locality. The visiting in connection with ophthalmia neonatorum has been much heavier this year.

TRAINING COURSE FOR HEALTH VISITORS.

A Course was commenced on January 2nd, 1934, eight candidates being accepted.

An overlapping Course had commenced in the previous October, six candidates entering; this made a total of fourteen candidates, six from Birmingham, one from East Sussex Nursing Federation and seven independent students.

One student resigned, and five sat for the examination at Bristol in April, all gaining the certificate. The remaining eight candidates sat at Birmingham in July, seven gaining the certificate.

As more training courses for health visitors have been organised elsewhere recently, there is a corresponding reduction in demand for the Course in Birmingham, so that it has been arranged to run one course in each year, instead of three in two years as hitherto.

Another Course was commenced in October, 1934. Twenty-four candidates applied for admission, nine from Birmingham and fifteen independent students. The work has been carried out on the same lines as before. Two lectures on "The Principles of Teaching" have been added to those already being given.

CHILD WELFARE CENTRES.

- (a) Number of centres provided and maintained by the City Council—29 and 2 subsidiary.
- (b) Number of centres provided and maintained by a Voluntary Association—1 and 1 subsidiary.
- (c) Total number of attendances for consultation at all centres during the year:
 - (1) By children under 1 year of age—108,766.
 - (2) By children between the ages of 1 and 5 years—73,475.
- (d) Total number of children who attended at the centres for the first time during the year:
 - (1) Children under 1 year of age—10,917.
 - (2) Children between the ages of 1 and 5 years—3,001.
 Percentage of live births represented by the figures in (d) (1) is 70 per cent.
- (e) Total number of children who were in attendance at the centres throughout the year:
 - (1) Children under 1 year of age—9,229.
 - (2) Children between the age of 1 and 5 years—24,346.
 Percentage of children between 1 and 5 years (total in City approximately 60,000) attending Child Welfare Centres (e) (2) 41 per cent.

During the year the Centres at Smith Street (St. Paul's Ward) and St. Vincent Street (Ladywood Ward) were given up, and a new Centre was opened between these two situations at Monument Road. Part of the area formerly dealt with from the Smith Street Centre was transferred to the Carnegie Centre and part to Aston Street Centre. An adjustment of the clinics was also made. The new Centre was constructed from three existing houses, and is in every way well adapted for the work, and the needs of the district. Since it was opened the Centre has been used to the fullest possible extent, and numbers of mothers have expressed their appreciation of the better premises, while the Health Visitors and Voluntary Workers are equally appreciative. In December the new premises for the Erdington Centre were formally opened by the Lady Mayoress. This is a new building, and is one of the best Centres in the City. It is being well used already, and a growing population should make still further use of the premises in the near future. The needs of the outlying Municipal housing estate at Kettlehouse have been temporarily met by renting a Municipal house and opening a Centre there. The premises are very cramped, but the mothers show their appreciation by coming in almost embarrassingly large numbers.

The Kingstanding Centre entered the National Parentcraft Competition for the first time in 1934 and gained the second place in the country, being accorded the Mildred Lister Silver Challenge Cup which was presented to the Superintendent by the Chancellor of the Exchequer at the Birmingham Town Hall at the opening session of the National Baby Week Conference. The Centre gained 527 marks out of a possible 600, the highest component marks being 96/100 for Centre records.

The National Baby Week Conference held during the first week of July roused considerable local interest. The Conference was a marked success, and the many delegates expressed great interest in the various Centres and Institutions visited, as well as much appreciation of the City's hospitality.

It is not possible to give in detail the special work carried out at many Centres from year to year, but the very effective baby week demonstrations, the effective demonstrations in the office corridor, the very successful toddlers' classes and the Parents' League, all bear witness to very great enthusiasm intelligently applied by the Health Visiting Staff.

The help given by the Voluntary Workers and the Mothers' Committees is very greatly appreciated. The work of the Voluntary Committees has never reached a higher standard; and the large amount of unselfish and unstinted personal service, given in a great variety of ways by the many voluntary workers associated with the various Child Welfare Centres has been a very real and important factor in their smooth and happy running and their social value.

The general statistics are given in a table on the next page.

Infants and Children :—		Woolley Castle.										Totals.					
Births (and stillbirths)																	
reported	377	699	585	237	410	368	285	325	506	431	644	552	487	448	310	827	14739
Primary visits	722	584	294	403	363	266	400	475	438	605	721	484	484	293	831	15161	
Re-visits (infants and children)	284																
Total visits and re-visits	5157	14639	10751	6152	8595	6584	3808	7177	8994	7225	13370	13566	6509	7769	7583	16949	289027
Mother's (Ante-Natal) :—																	
Primary visits	10	106	40	33	99	37	12	63	53	58	57	151	77	36	53	72	2044
Re-visits	195	948	640	288	535	345	141	342	441	398	1029	692	325	316	403	1054	15499
Total visits and re-visits	5441	15361	11335	6446	8998	6947	4074	7577	9469	7663	13975	14287	6993	8253	7876	17780	304188
Children's Consultations :																	
Number held	98	193	98	76	50	60	97	83	98	104	98	193	98	98	98	146	3305
Fresh Children attending	293	756	440	373	219	260	263	294	444	340	547	740	486	309	403	759	13918
Total attendances	4796	10375	5108	3680	2654	3134	4026	3467	4510	5272	5317	9072	5223	4359	3503	8087	164813
Number seen by Doctor	1953	4750	2343	1604	1167	1227	2228	1594	2173	2192	1965	2098	2345	1968	1875	4295	73771
Medical Inspections (1½—5 yrs.) :—																	
Number held	—	50	48	19	46	29	—	29	30	—	48	48	48	48	31	49	1062
Total attendances	—	739	891	347	684	512	—	516	479	—	757	892	759	815	517	801	17428
Mothers' Consultations :																	
Number held	48	146	50	40	48	29	50	58	48	48	63	98	83	57	49	96	1953
Fresh mothers attending	139	501	330	227	215	164	140	319	205	160	421	601	270	269	172	491	8867
Ante-Natal	568	2128	984	721	874	458	538	843	643	645	1297	1691	991	897	619	1470	28719
Attendance at :																	
Sewing classes	750	1051	695	415	—	659	—	—	619	506	461	439	642	630	—	659	17414
Cookery classes	—	463	—	369	505	—	—	—	489	—	178	—	—	—	—	—	3563
Health Talks	1516	3823	3938	968	1164	323	1274	453	1038	2449	2854	2782	1332	1511	1136	3577	64789

INDIVIDUAL CHILDREN ATTENDING CENTRES IN 1934.

Acocks Green	...	...	...	1,754	Monument	Smith Street	7 months	2,074
Aston Street	...	...	...	1,299	Road	St. Vincent St.		
Billesley	...	...	...	943	Monument	Rd.	5 months	
Bloomsbury Street	...	...	...	1,505	Northfield	...	...	934
Bromford	...	...	...	767	Perry Common	...	...	2,268
Carnegie Institute	...	...	...	2,419	Selly Oak	...	...	532
Erdington	...	...	...	1,144	Stechford	...	...	1,004
Floodgate Street	...	...	...	897	Stirchley	...	...	720
Greet	...	...	...	1,339	Stratford Road	...	...	1,189
Handsworth	...	...	...	781	Sutton Street	...	...	1,410
Harborne	...	...	...	528	Trinity Road	...	...	1,297
Hay Mills	...	...	...	927	Washwood Heath	...	...	840
Hope Street	...	...	...	1,195	Weoley Castle	...	...	926
Irving Street	...	...	...	820	Wright Street	...	...	1,749
Kettlehouse	...	...	...	330				
King's Heath	...	...	...	653				33,575
Lansdowne Street	...	...	...	1,331				
Under 1 year	...	...	...	9,229				
Over 1 year	...	...	...	24,346				

TODDLERS' EDUCATIONAL CLASSES.

The following centres held weekly toddlers' classes:—

Centre.	Average Attendance.
Acocks Green	50
Aston Street	21
Billesley	7
Bloomsbury Street	24
Bromford	27
Carnegie	74
Erdington	18
Floodgate Street	14
Greet	15
Handsworth	12
Harborne	12
Hay Mills	7
Hope Street	16
Irving Street	23
King's Heath	15
Kingstanding	25
Lansdowne Street	16
Monument Road	24
Northfield	10
St. Vincent Street	14
Smith Street	17
Stechford	14
Stirchley	9
Stratford Road	17
Sutton Street	14
Trinity Road	13
Washwood Heath	12

The teaching is done by health visitors, assisted by voluntary workers, whose work reaches a high standard of efficiency. The classes are very popular with the children and they undoubtedly benefit materially from them. The classes are particularly helpful to backward and shy children and the "only" child. The work was fully detailed in the report for 1932 and has been continued on similar lines.

MEDICAL INSPECTION FOR PRE-SCHOOL CHILDREN ("TODDLERS").

As a continuation and extension of the work initiated in 1930, 1,062 medical inspection clinics were held in 1934, with an attendance of 17,428 children, giving an average attendance of sixteen. The number of children attending was 5,524.

Children between 2 and 5 years come by appointment and are recalled every three months.

HEALTH VISITORS' ENQUIRIES.

I. *Breast Feeding.*

The health visitors were asked to supply returns for the period during which breast-feeding was continued among the infants born in 1934. Reports on 18,703 infants were received out of a total of 15,681 live births in the City. Of these, only 8.0 per cent. were never breast-fed. Of those that were breast-fed, 23.8 per cent. were entirely breast-fed to six months. At three months, 60 per cent had been weaned. The proportion of infants breast-fed to six months is undoubtedly diminishing.

Total cases investigated	13,703	
Total number of babies breast-fed	12,613	= 92%
Up to 2 weeks	1,473	= 11.7%
,, 1 month	2,421	= 19.2%
,, 2 months	2,036	= 16.2%
,, 3 ,,	1,643	= 13%
,, 4 ,,	1,102	= 8.7%
,, 5 ,,	924	= 7.3%
,, 6 ,,	3,002	= 23.8%
Not visited frequently	12	= .1%
Never breast-fed	1,090	= 8.0%

II. *Premature Infants born in 1934.*

Out of 14,023 live births on which reports in this respect were made, 818, or 5.8 per cent., were born before the 38th week and were, therefore, at least a fortnight premature. Of these 526, or 64 per cent., were alive at the end of the first quarter of 1935, and of those remaining alive, 66 per cent. were in good health.

Thirty-five per cent of the infants died and no less than 27 per cent. of these died in the first fortnight. After three months a premature infant has as good a chance of life as any other. The number of twins was surprisingly small, since multiple pregnancy is considered a common cause of prematurity.

Thirty-two per cent. of the mothers with premature infants were reported to have had some form of ill-health in pregnancy. Almost half these children were born in hospital.

That 63 per cent. of the women were in satisfactory physical health demonstrates the difficulty of finding a cause for premature birth.

The fact of prematurity rests in these cases on the mother's statement and a wide margin of error must, therefore, be allowed. Nevertheless the figures are of some interest.

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Total	%
TOTAL NUMBER of infants born during 1934, where information was obtained	3,447	3,794	3,444	3,338	14,023	
NUMBER PREMATURE (before 38th week)	198	235	192	193	818	5.8
Number still alive (March, 1935)	110	150	139	127	526	64.3
Present health (a) good	80	102	98	71	351	66.7
(b) fair	26	39	31	43	139	26.4
(c) poor	4	9	10	13	36	6.9
Total number dead	88	85	53	66	292	35.7
No. dead before 2nd week	70	66	36	51	223	27.2
" " 3rd week	3	6	6	3	18	2.2
" " 4th week	6	4	3	5	18	2.2
" " 2nd month	3	5	6	2	16	2.0
" " 3rd month	3	3	2	4	12	1.5
" " 6th month	2	1	—	1	4	0.5
" " 8th month	1	—	—	—	1	0.1
Mother's health in ante-natal period :—						
(1) Good	127	152	129	114	522	63.8
(2) Ill-health	44	58	49	49	200	24.5
(3) Toxaemia (3 included in 2)	8	13	19	22	62	7.6
(4) Twins	7	9	5	6	27	
(5) Not known	11	7	8	7	33	4.1
Where born : Hospital	92	108	94	91	385	47.1
Home	105	126	98	100	429	52.4
Nursing Home	1	1	—	2	4	0.5

ANTE-NATAL CLINICS.

The average number of ante-natal clinics held weekly is 40 and the average attendance is 15 per clinic. 58 per cent. of the women delivered in 1934 attended these clinics. This is an increase of 3 per cent on the previous year. The midwives are co-operating excellently and the great majority make every effort to secure their patients' attendance.

Year.	No. of Sessions.	No. of fresh expectant mothers attending ante-natal clinics.	Total attendances.	Births and Still-births.	Births and Still-births visited.	Percentage of mothers visited attending ante-natal clinics.
1916	No record	561	No record	21,347	8,143	7
1917	"	538	"	18,286	9,143	6
1918	"	1,603	3,275	17,430	12,044	13
1919	"	2,940	6,250	20,079	15,154	19
1920	857	3,939	8,812	25,980	21,006	19
1921	824	4,683	10,380	22,938	18,718	25
1922	800	4,095	8,450	20,510	16,254	25
1923	890	4,386	9,391	19,698	16,193	27
1924	981	4,043	10,395	18,934	15,969	25
1925	1,034	4,346	11,135	18,445	15,647	28
1926	1,117	4,630	12,043	18,517	15,626	30
1927	1,188	4,615	12,252	17,773	16,217	28
1928	1,304	6,098	15,803	17,817	16,186	38
1929	1,522	7,308	19,751	17,393	16,522	44
1930	2,071	9,466	28,323	18,105	17,828	53
1931	2,090	8,616	27,608	17,740	16,937	51
1932	1,892	8,174	25,983	17,219	16,190	50
1933	1,905	8,290	26,538	15,645	14,975	55
1934	1,953	8,867	28,719	16,261	15,161	58

ULTRA VIOLET LIGHT CLINICS.

Condition.	Total No. of Cases.	No. of New Cases.	No. of Attendances.
1. Rickets, prophylactic rickets and delayed dentition	1,975	671	8,730
2. Catarrhal	593	213	2,727
3. General debility	1,574	507	7,143
4. Nervous irritability	172	47	756
5. Chronic chest conditions and bronchitis	545	182	2,747
6. Asthma	67	18	333
7. Muscular weakness	126	93	1,211
8. Malnutrition	153	54	675
9. Skin conditions	33	5	175
10. Anorexia	63	19	307
11. Enlarged glands	10	2	66
12. Other conditions	378	116	1,709
	5,689	1,927	26,579

The clinics are situated at the following Centres :—

Aston Street, Carnegie Institute, Floodgate Street, Greet, Harborne, Hope Street, Monument Road, Sutton Street, Selly Oak, Stirchley, Stratford Road, Wright Street and Kingstanding.

REMEDIAL EXERCISE CLINICS.

	No. of Prescribing Clinics held.	No. attending.	No. of Remedial Clinics held.	No. of Attendances.
Carnegie	7	67	50	830
Selly Oak	6	42	47	829
Kingstanding	7	63	48	877
Wright Street	6	71	46	977
Bloomsbury Street	6	48	47	603
Stratford Road	6	73	50	1,009
Aston Street	6	53	47	732
	44	417	335	5,857

73% of the total number invited to the Prescribing Clinics attended.

Type of Deformities.	Number of cases of defect	Percentage of total cases of defect.
Knock knees	450	27.6%
Flat Feet	359	22.0%
Postural defects	313	19.2%
Chest deformities	253	15.5%
Constipation	92	5.6%
Hypotonicity	75	4.6%
Curved tibiae	36	2.2%
Winged Scapulae	29	1.8%
Scoliosis	13	.8%
Lordosis	12	.7%

DENTAL TREATMENT.

		Stratford Road.	Carnegie Institute.	Total.
Number of clinics held	...	225	329	554
Mothers attending	...	2,920	4,217	7,137
Children attending	...	1,279	2,413	3,692
Average attendance—Mothers	...	13	13	—
Average attendance—Children	...	6	11	—
Local Anaesthetics	...	69	126	195
Gas	...	2,159	3,640	5,799
Dentures supplied	...	310	442	752

Of these clinics 428 were taken by Mr. Payton, the whole-time Dental Surgeon of the Department, and 126 by part-time dentists, whose services were required to deal with accumulated waiting lists.

In addition, 17 inspection clinics were held at the various child welfare centres in rotation, when the dentist examined 730 expectant or nursing mothers and children, and gave on each occasion a lecture on dental hygiene.

TREATMENT OF EAR, NOSE, THROAT AND EYE CONDITIONS.

Cases referred from Child Welfare Centres and examined during 1934 at the Children's Hospital for the treatment of the above conditions were as follows:—

Eyes, ear and throat cases	...	...	...	...	...	...	405
Tonsils and adenoids (operation required)	...	...	...	...	...	...	524
Tonsils and adenoids (examination only)	...	...	...	...	...	...	272

THE PROVISION OF FOOD FOR NECESSITOUS MOTHERS AND CHILDREN.

There are eight dinner centres established in the central areas of the City and mid-day meals are supplied at these centres to both mothers and children. The food is cooked at the municipal kitchen built for the purpose. The meals are served on five days a week.

Throughout the year the number of mothers and children attending the dinner centres has been fairly constant. There is a great increase in the number of toddlers attending for dinners. Fifteen thousand more dinners were served during 1934 than in 1933. The total attendances were 74,133 (27,145 mothers, 46,988 toddlers).

The meals have, as usual, been well-cooked and as much variety as possible has been provided. The toddlers, in addition to a two-course dinner consisting mainly of mince or fish, vegetables, milk pudding or stewed fruit and custard, receive one-third of a pint of milk daily. In most cases the mothers pay twopence for their dinners, but in a great majority of cases, where the family is a poor one, the toddlers receive free dinners.

In August, when the Smith Street and St. Vincent Street centres closed, the meals were served at the new centre in Monument Road, where the attendances have been most satisfactory—among the highest in the City. Many of the mothers and children attending Smith Street Centre were transferred to the Newtown Row Dinner Centre.

Attendances at Dinner Centres:

Newtown Row	...	...	...	12,505
Smith Street (closed 4/8/34)	...	...	...	7,173
Hope Street	...	...	...	10,410
River Street	...	...	...	8,117
Bloomsbury Street	...	...	...	10,599
Carnegie Institute	...	...	...	9,304
St. Vincent Street (closed 4/8/34)	...	...	...	4,369
Sutton Street	...	...	...	6,976
Monument Road (opened 13/8/34)	...	...	...	4,680
				74,133

Number of individual mothers and children who received dinners at some period during 1934:

				Mothers.	Toddlers
Newtown Row	...	...	...	148	159
Smith Street	...	...	...	24	25
Hope Street	...	...	...	76	108
Floodgate Street	...	...	...	72	104
Bloomsbury Street	...	...	...	66	104
Carnegie Institute	...	...	...	56	93
St. Vincent Street	...	...	...	12	20
Sutton Street	...	...	...	48	74
Monument Road	...	...	...	25	44
				<hr/> Total 527	<hr/> 731
				<hr/>	<hr/>
<i>Cost—</i>					
				£	s. d.
Cost of food	...	...	...	986	19 8
Cost of transport	...	...	...	117	9 9
				<hr/>	<hr/>
				1104	9 5
Receipts from centres	...	...	...	269	11 3
				<hr/>	<hr/>
				£834	18 2
				<hr/>	<hr/>

Approximate total cost per meal including overhead charges=4.5d.

Net cost per meal excluding overhead charges=2.7d.

In addition meals are served to children at 17 centres as "breakfast" meals. Milk and whole-meal bread and butter are supplied, the children receiving half a pint of milk, while the mothers are given a second half pint to take home to use for the child during the rest of the day.

In all cases the mothers and children are seen and recommended for meals by the medical officers. The mothers pay 2d. per meal and the children a penny, but the latter receive free meals if the family income is below 3/6d. per head per week, after deducting the rent.

A total of 2,619 children received such meals, and made 57,354 attendances for that purpose.

CARNEGIE INFANT WELFARE INSTITUTE.

The attendances at the various sessions have been very satisfactory.

A new feature is the establishment of the parents' guidance clinic on which a special report is given.

The toddlers' classes have been particularly successful.

The Parents' League of Health has now 100 members.

A Baby Week Exhibition held in June proved a great attraction, over 700 people attended during the week.

The Institute gained the "Walker" Mothercraft Shield having obtained the highest marks among Birmingham Centres.

A memorial to Miss E. Exell (the late Matron) was placed in the hall, subscribed for by colleagues, voluntary workers and mothers from all the City centres. It is in the form of a beautiful golden bronze figure of a young child and is the work of Mr. Wm. Bloye, A.R.A.

The attendances at the Carnegie Institute were as follows:—

			No. held.	Total attendances
General infant consultations	...	...	210	12,351
Medical inspections (18 months to 5 years)	...	...	47	788
Ante-natal clinics	...	...	114	1,398
X-ray clinics	...	...	46	575
Dental clinics (treatment)	...	...	328	6,579
Light clinics (treatment)	...	...	72	2,991
Remedial exercises (prescribing)	...	...	7	67
Remedial exercises (treatment)	...	...	50	804
Sewing classes	...	...	47	540
Cookery classes	...	...	37	388
Mothercraft classes	...	...	46	652
Health talks	...	...	381	6,283
Parents' Guidance clinics	...	...	46	261

THE OBSERVATION WARD CARNEGIE INSTITUTE.

During the year 1934, 150 children were admitted to the ward and the average length of stay was 23½ days. Twelve mothers were also admitted—one for re-establishment of breast milk and the others because they were breast feeding ill children, or the breast feeding was mismanaged.

There were 4 cases of re-admission and 9 deaths. Excluding the one lactation case and 4 healthy children admitted for investigation prior to adoption, there remain 145 ailing children. Of these:—

- 38 were discharged as cured.
- 101 were discharged as improved.
- 6 were discharged as in status quo.

During the year, 26 children were transferred to Canwell Hall for further treatment—the majority of these being chronic chest cases. Three were transferred to the Children's Hospital and 1 to Selly Oak Hospital for various operations. One mother was transferred to Dudley Road Hospital for phlebitis. One child was sent to Little Bromwich with whooping cough and 2 were transferred to Yardley Sanatorium.

The 9 deaths were due to:—

- 1 Pneumonia.
- 2 Intracranial haemorrhage—haemolytic anaemia.
- 3 Acute otitis media—sinusitis.
- 4 Gastro enteritis.
- 5 Tuberculous meningitis.
- 6 Gastro enteritis—otitis media.
- 7 Septicaemia—broncho pneumonia.
- 8 Prematurity.
- 9 Cerebral haemorrhage due to birth injury.

During the year, only one case of infectious disease (whooping cough) occurred in the ward and fortunately there was no further spread.

As in previous years, the reason for admission to the ward was chiefly for the investigation of children in a debilitated condition, or of those failing to make usual progress—mentally or physically.

Amongst the toddlers, chest conditions again headed the list and mismanagement came second, whilst among the babies feeding difficulties and gastro intestinal symptoms were the chief factors.

THE PARENTS' GUIDANCE CLINIC.

The Parents' Guidance Clinic was opened in January, 1934 at the Carnegie Institute to assist parents in the management of difficult children. It has proved a very helpful feature of the Child Welfare Scheme.

Dr. J. Hammond, of Wolverhampton, was appointed as the medical psychologist, with Dr. Ursula Cox as his assistant. The response has been good, although in a number of cases only one visit was paid. The total attendance was 261 with 113 cases. The Medical Officers at the Child

Welfare Centres recommend the mothers to attend and fill in an appropriate report form, which is supplemented by a report from the Superintendent of the Centre. Appointments are made, and cases dealt with in rotation. The Clinic is held weekly. The reports from medical officers and health visitors show good results in a large proportion of cases, and many letters of thanks from parents have been received.

Although every child and every mother presents special individual features, it is possible to divide the cases roughly into certain groups according to the condition for which they have been brought for advice.

GROUP 1. The frightened, negative child.

These children are what is commonly called "spoilt." They have been much over-indulged and badly managed. The indulgence alternates with scolding and physical correction when the mother loses her temper, and as a result the child is frightened, negative and unfriendly. A marked feature is the clinging to the mother.

GROUP 2. Children suffering from nervous excitability.

These children are a contrast to the first group in so far as they are friendly and show no fear or dislike of strangers. Many of them are charming and intelligent. They suffer from over-stimulation, too much notice, frequently from late hours and too many toys, treats, etc. This has resulted in an unstable and excitable nervous condition showing itself in fears (as of the dark, going to bed, etc.), fits of temper, frequent tears and other emotional symptoms.

GROUP 3. The self-assertive child.

These children are what the mother describes as "out of hand" or "naughty." They demand attention and are aggressive and difficult to control.

WALKER SHIELD COMPETITION.

1931-1934.

The Walker Shield was awarded to the Carnegie Infant Welfare Institute and was presented at the Town Hall at the opening meeting of the National Conference on Maternity and Child Welfare with the National Mothercraft Shields.

The judges of the reports from the medical officers were Dr. Bell, Assistant Medical Officer of Health (Maternity and Child Welfare), Liverpool, and Dr. Strathie, Assistant Medical Officer of Health (Maternity and Child Welfare) Renfrew. The superintendents' reports were judged by Miss Cooper Hodgson, Superintendent of Health Visitors, County Durham. The following brief extracts are given from the judges' reports:—

Dr. Bell.

"I never had a more difficult task than to judge the superior merits of one clinic over another when all are so superlatively good."

I have found the reading of the papers most interesting and I am sure it would not be possible to find better organised Maternity and Child Welfare work in the whole of the Kingdom."

Dr. Strathie.

"An examination was made of reports relating to the work of 30 Centres. These reports provided intensely interesting reading, indicative as they were of the efficient and highly organised work which is obviously being carried on in all areas."

Miss Cooper Hodgson.

"It has been a pleasure to read of so much enthusiastic work. I should like to offer my congratulations to everybody concerned."

The Carnegie Institute secured a long lead in the final totals gaining the shield by 51 marks. King's Heath Centre and Bromford Centre were 2nd and 3rd respectively.

HOME HELPS.

Fifty home helps were employed in 1934 but towards the end of the year it became obvious that a larger number was required and steps have been taken to increase the staff.

Seven hundred and twenty-eight cases were attended during the year, an increase of 164 over the preceding year. Sixty-three were cases of non-infectious (non-maternity) illness, compared with 42 in 1933.

That the high standard of the home helps' work continues to be maintained is obvious from the increase in the number of applications and by the appreciative letters received from both husbands and wives.

Details of this service were given in the 1933 report.

CITY BABIES' HOSPITAL.

CANWELL HALL (84 beds).

A full statement of the work of the hospital was given in the 1933 report. There has been no material alteration in its scope and character. The demand for beds has been as great as ever, and the children on the whole have benefited markedly from their stay. The long period of treatment available for non-pulmonary lung infections has proved of great value.

Rickets continues to diminish. There were 22 cases in 1934 as against 47 in 1933, 91 in 1932, and 71 in 1931. At the same time, a very high proportion of the children show evidence of mal-nutrition (see table). It would appear that the Centres are dealing satisfactorily with the prevention of severe rickets through the sale of cod-liver oil and the ultra-violet light clinics, but that malnutrition remains a major problem.

The considerable number of children removed against advice (41 out of 464 discharges) is unfortunate, but the parents miss the children, and visiting day proves too much for their fortitude in many cases. 18 out of the 41 were removed before they had completed the initial isolation period on admission of 3 weeks. The average of stay in the more serious cases is satisfactory.

Dysentery has proved the most troublesome infection during the year. The cases were, however, very mild and it is hoped that the routine swabbing of children on admission will check the spread of the disease in future. Roughly 7 per cent. of the children on admission are carriers of dysentery micro-organisms.

The Mantoux test for tuberculosis is carried out on every child on admission. A positive reaction led to the detailed investigation of 27 cases. In 10 cases there was a family history of the disease, the children having been close contacts. Three of this group had active tuberculosis and two died; five showed definite pulmonary involvement and two gave no evidence of the disease. Among the remaining 17, seven showed suspicious pulmonary changes, while 10 gave no definite evidence of the disease.

Urinary infections are very common and every child admitted is investigated from this point of view. The fifteen noted, suffered from a severe infection, which was the predominant cause of ill-health.

Sixty-seven children admitted were found to be suffering from chronic pulmonary infections. With a sufficiently prolonged period of treatment these children did very well in the majority of cases, but in some the disease was too advanced or widespread to hope for permanent recovery. Such conditions follow attacks of acute broncho-pneumonia where hospital treatment has not been sufficiently prolonged, and where the home conditions are not favourable to recovery. Under the best conditions of diet and hygiene an attack of broncho-pneumonia in a young child may take many weeks for complete resolution. In overcrowded and poor homes a chronic condition frequently supervenes.

The amount of illness among the staff was not above the average. There were four cases of catarrhal jaundice, an infectious condition not infrequently occurring among the staffs of children's hospitals. Precautions are taken to obviate spread. Three cases of diphtheria occurred among the nursing staff, in nurses who for various reasons had not been immunised.

<i>Number of Admissions.</i>		<i>Number of Discharges.</i>	
0—1 years	152	Well	182
1—2 years	164	Improved	247
2—5 years	187	In status quo	35
	<hr/>		<hr/>
	503		464
Number of deaths	35	Number in hospital at end of year	82
	<hr/>		<hr/>

Average length of stay, 61 days.

Cases were classified as follows:—

	0—1 yrs	1—2 yrs.	2—5 yrs.	Total.
Rickets	2	15	5	22
Cardiac disease	1	1	10	12
Urinary disease	8	5	2	15
Anaemia	15	27	15	57
Chronic chest conditions	10	12	45	67
Acute chest conditions	10	11	5	26
Malnutrition	60	57	71	188
Cardiac disease	2	0	1	3
Ear conditions	3	7	6	16
Erythroedema	4	4	1	9
Mental deficiency and backwardness	1	2	4	7
Mismanagement	7	4	7	18
Other conditions	2	5	17	24
	<hr/>	<hr/>	<hr/>	<hr/>
	125	150	189	464
	<hr/>	<hr/>	<hr/>	<hr/>

Causes of Death.

Otitis media	...	...	...	1
Tetany	...	...	...	1
Dysentery and anaemia	...	...	...	1
Tuberculosis	...	...	...	2
Prematurity	...	...	...	2
Congenital debility	...	...	...	1
Gastro-enteritis	...	...	...	8
Erythroedema	...	...	...	3
Broncho-pneumonia	...	...	...	16
			<hr/>	
			35	
			<hr/>	

Classification of ages at death.

0—2 months.	2—6 months.	6—12 months.	1—5 years.
12	16	4	3

Total : 35

Incidence of Infectious Disease.

Disease.	Admitted	Incubating.	Others	Contacts developing Disease
Whooping cough	4	0
Chickenpox	2	0
Measles	0	1
Scarlet fever	2	0
Diphtheria (July)—(Ward 1)	0	1 nurse
(Ward 4)	1	2 nasal
(December)—(Ward 2)	1 nasal	1 „
				2 nurses

Incidence of Dysentery.

Incidence of infection was high in late summer and early autumn.

The first case occurred on 24/7/34, with severe clinical symptoms. All children in hospital and the staff were examined for infection. There were 8 children in Ward 1, one in Ward 1 balcony, and one in Ward 2 who gave a positive growth of *B. dysenteriae* Flexner. One nurse gave a positive growth with no clinical symptoms. These cases were all isolated at Canwell Hall.

The second outbreak of infection occurred in the second week of September. All children in hospital and the nursing staff were again examined, and 20 children (5 of whom were in the admission wards) and two nurses gave a positive result. Nine children were transferred to Little Bromwich Hospital and the remaining eleven were isolated in Canwell Hall. No further spread occurred.

Since 27/9/34 all children admitted (with the exception of those in the baby ward) had stools examined for the presence of *B. dysenteriae* on the day following admission. Of 102 admitted in this period 7 gave a positive result. 6 of these were transferred to Little Bromwich Hospital and one was discharged home.

No spread has occurred since routine examination of stools on admission was begun.

THE CONVALESCENT HOME FOR MOTHERS.

PIPE HAYES HALL, CHESTER ROAD, ERDINGTON.

(Beds—Mothers 22; Babies—20).

The Home admits expectant mothers and mothers with babies under six months who require rest and care. Many of the women are found to be suffering from malnutrition, and show a remarkable improvement after their short stay in the Home. The normal period of stay is a fortnight but this may be prolonged to three weeks when necessary. The payments are now based on a scale and this arrangement has been of great benefit to the poorer mothers.

Admissions.					
Mothers	...	...	...	...	407
Babies	...	...	...	...	418
Expectant Mothers	...	...	...	...	29
					Total 854

LORDSWOOD RESIDENT NURSERY.

(35 beds).

The overcrowding in the wards necessitated a reduction in the number of beds from 44 to 35 in April of this year. There were 102 admissions in 1934.

During the year no definite outbreak of infection occurred but there was a great deal of illness among the younger infants, the majority of whom are ailing on admission. Thirty-four children required to be transferred to hospital (all under nine months). Of these, ten were suffering from dyspepsia or enteritis, seven from bronchitis or pneumonia, four from tonsillitis, five from serious loss of weight with no definite symptoms, and the remainder from such conditions as pyelitis, anaemia, eczema and arthritis.

The need for cubicle admission beds is badly felt.

THE CITY MATERNITY HOMES.

THE WAKE GREEN ROAD MATERNITY HOME (SORRENTO).

(Including a special report on 2,000 consecutive maternity cases).

There has been an increased demand for beds during 1934 and the number of patients admitted has been greater than in any previous year. This has been possible in the maternity wards because the length of stay has been reduced to 10 days from a fortnight. The change was considered desirable in the interest of the patients, with whom it is very popular.

There was no case of puerperal septicaemia; three cases of mild sapraemia were notified, as well as seven cases of mastitis, and one of phlegmasia alba dolens (white leg). This gives eleven cases of illness in 573 maternity cases. One maternal death occurred from a pulmonary embolus, the origin of the infection in this case was extra-uterine, and was shown in the post-mortem to be associated with a chronic pulmonary abscess. Death occurred late in the puerperium.

One of the features to be noted is the low forceps rate, viz.: 6.4 per cent. The number of complicated labours, in spite of intensive ante-natal care, is of considerable interest. The midwives at the Maternity Home required to call medical help in 286 of the 573 cases of which 63 (or 11 per cent. of all cases) required medical aid for the immediate complications of labour, not including perineal lacerations.

Patients are admitted to the Home on social rather than medical grounds, except when they have been admitted to the ante-natal ward for treatment. Only 14 of the total deliveries (unbooked cases) belonged to the latter group, 559 were booked cases, and of these, 289 were primiparae. This high proportion is accounted for by the number of young married persons living in lodgings.

Of the 559 booked cases, no less than 242 or 43 per cent. required admission to the ante-natal ward, in every case for a medical reason. The importance of a sufficiency of ante-natal beds in a maternity institution is again emphasised.

Of the 563 babies born (booked cases) 2.3 per cent. (13) were stillborn, and 3.6 per cent. (20) died during the first two weeks of life. The majority were premature or malformed infants. Toxaemia of pregnancy in the mother is associated with premature infants and stillbirths.

The Premature Baby Ward has been well used. One hundred and seventy-seven babies were admitted. Investigations have been made into various conditions affecting the premature infant. The difficult problems of oedema neonatorum and the haemorrhagic disease of the newborn have received special attention. The infants affected have been benefited by injections of maternal blood. The value of various sugars in the feeding of the premature infant has been investigated, and rickets, to which premature infants are said to be peculiarly liable, has been found to be readily prevented by the use from the first of cod liver oil. A study of the blood, followed up in a large number of these infants till the age of four to five months, has shown that anaemia is not a feature of prematurity, as has been supposed, but is associated with the occurrence of infections.

In addition, special investigations have been carried out at the ante-natal clinics and in the ante-natal ward on pregnant women in relation to the rapid increase of weight associated with toxæmia, hydramnios and multiple pregnancy.

The figures for the year's work are given below:—

Maternity Wards, Wake Green Road Maternity Home. (21 beds).

Ante-natal Ward. (10 beds).

Ante-natal Clinics.

Post-natal Clinic.

No. of clinics held 34
 Total attendances 346

Premature Baby Ward. (16 beds—10 for babies; 6 for mothers).

No. of babies admitted	177
No. of babies died	73
Average days' stay of those admitted	17
Average days' stay of those that died	4
Average days' stay of those that survived	28
No. of mothers admitted	83
Average days' stay	14

Total number of patients passing through Home during 1934.

Maternity wards—mothers	....	....	....	....	....	....	573
Maternity wards—babies	....	....	....	....	....	....	577
Baby wards—babies	....	....	....	....	....	....	177
Baby wards—mothers	....	....	....	....	....	....	83
Ante-natal ward—mothers	....	....	....	....	....	....	288
							1,698

PREMATURE BABY WARD.

During 1934 :—

Premature babies admitted	....	....	....	....	....	158
Weakly babies (not premature)	....	....	....	....	....	19
Mothers admitted for breast feeding	....	....	....	....	....	83

Results to weakly babies.

Discharged in good condition	....	....	....	....	....	....	18
Died	....	....	....	....	....	....	1

Results to Premature Babies.

Weight on admission.	No.	Died.	Saved.
0—2 lbs.	6	6
2—3 lbs.	23	21
3—4 lbs.	55	26
4—5 lbs.	51	14
Over 5 lbs.	23	2
Totals	158	69

Premature Baby Ward Special Report. 1931—1934.

In order to show the results of the work of the premature baby ward a return of four years' work is given. Four hundred and ninety premature infants have been dealt with during this period with encouraging results. In considering these results it is necessary to remember that the infants are admitted from all parts of the city on the request of doctors and midwives, so that they have frequently incurred grave risks before admission. Actually 98 infants were moribund on admission. Excluding these, 84 per cent. of the infants survived and were sent home weighing over 5 lbs. and in good health. No child weighing less than 2 lbs. at birth survived. The results obtained are very encouraging, though many problems await solution.

Report on Premature Baby Ward for 1931, 1932, 1933 and 1934.

Total number of Premature Babies admitted	....	....	....	490
No. of deaths	....	....	....	178
Therefore Gross Death Rate	....	....	....	36.3%

Omitting 98 moribund babies (which died within first 24 hours) there remain 80 deaths. Therefore Net Death Rate

16.3%

Analysis of results according to weight.

	No. of cases.	No. of deaths.	% Saved.
Up to 2 lbs.	18	18
2—3 lbs.	76	63
3—4 lbs.	160	59
4—5 lbs.	171	34
Over 5 lbs.	65	4
	490	178	63.6%

Analysis of cause of death.

	No. of cases.	% of total admissions.
Chest infections	8
Gastro-intestinal infections	8
		16 =3.3% of total admissions.
Congenital abnormalities	11
Haemorrhagic Disease	14
Oedema of Newborn	7
		21 =4.3%
Toxaemia of pregnancy in Mother	2
Thymus+	1
Suppurative parotitis	1
Intracranial birth injury	4
Prematurity only	122
		=0.8%
		=24.5%

MATERNITY CASES.

Special Report on 2,000 Consecutive Booked Cases.

Dr. Crosse, Medical Officer to the Maternity Home, has supplied the statistics of the work of the Home for a period of over four years and covering two thousand consecutive booked cases.

These are of particular interest, since it is seldom possible to obtain figures of this magnitude relating to child-birth carried out under identical conditions. Here the environment, the medical care, the social class, the race, have been similar, and as the cases have been selected for social and not for medical reasons, it is obvious that a not unfavourable section of the female population from the health standpoint has been dealt with. Nevertheless, no less than 40 per cent. were abnormal at some period of their pregnancy or labour, and 29 per cent. required institutional ante-natal care other than for the actual confinement.

The maternal mortality is very low, there were two deaths, both in the unavoidable class of "accidents of child-birth." This rate could hardly be bettered. The notifiable case rate (2.4 per cent.) is extremely good and would be even more remarkable but for the fact that mastitis has proved a troublesome complication at different periods. There has only been one case of septicaemia (or puerperal fever). The notifications have been carefully supervised and every pyrexial case occurring in the wards is included in these figures.

These statistics certainly show that a properly managed maternity home can give excellent results, even when, as in this case, the building is an adapted one, and far from ideal from the structural standpoint. Apart from the question of the safety of the women the figures have many points of interest.

These very excellent results have been obtained when dealing with a very high proportion of primiparae (54.6 per cent.).

Of the total, 60 per cent. of the women had a normal ante-natal period, labour and puerperium. The largest number of complications occurred in the ante-natal period, 29.4 per cent as against 15.4 per cent. of complications during labour. A study of these ante-natal complications shows how serious many of them were and what a large field they cover, but no less than 39 per cent. were due to toxæmia of pregnancy, which carried with it not only immediate danger to the life of the mother and child, but the possibility of chronic kidney disease. The toxæmias give the largest number of stillbirths from ante-natal conditions.

The still-birth rate is 3.2 per cent of the births and is somewhat below that of the City as a whole, while the neo-natal mortality is satisfactory.

The whole of these returns are of considerable medical interest.

General Statistics.

Primipara—54.6% of cases.

Mothers. No. confined=2,000.

Normal ante-natal period, labour and puerperium (1,213 cases)	....	60%
Complicated ante-natal period (588)	....	29.4%
Complicated labour (308)	....	15.4%
Complicated puerperium (102)	....	5.1%
Maternal mortality	....	1 in 1,000
Maternal morbidity....	....	2.4%
Forceps rate	....	5.6%
Toxæmia of pregnancy	....	11.5%
Cases attending post-natal clinic	....	64%

Infants. No. born=2,030.

Stillborn (64)	....	3.2%
Died in 14 days	....	2.2%
Premature birth rate (before 36 weeks)	....	2%
Stillbirth rate for breech presentations	....	10%
Stillbirth rate for forceps deliveries	....	8%
Babies breast-fed entirely	....	82%
Babies breast-fed partly	....	10%
Babies artificially fed	....	8%

Abnormal Pregnancies, with results.

Complication.	No. of Cases.	Results.	
		To Mother.	To Child.
Heart disease	32	all good	1 infant died.
Hyperthyroidism	7	all good	all good
Hypothyroidism	1	all good	good.
Chorea of pregnancy	3	all good	all good.
Chest conditions	3	all good	all good
Duodenal ulcer	1	good	good
Prolapse	1	good	good.
Anaemia or marked debility	13	good	good.
Dysentery	2	good	good.
Red degeneration of fibroid	2	good	good.
Severe varicose veins	15	5 had superficial thrombosis during puerperium good	all good.
Profuse vaginal discharge (not V.D.)	10	2 premature labours	1 slight discharge of eye.
Threatened premature labour	21	all good	1 stillborn infant.
Diabetes	2	all good	all good.
Hydramnios	3	all good	1 died.
Pyelitis	54	12 still had pus at 14 days all good	3 died and 1 stillborn.
Vomiting of pregnancy	9	all good	all good
Placenta praevia :—			
(central)	6	1 pyrexia	all stillborn.
(lateral)	12	all good	stillborn and 1 died (prem.)
Ante-partum haemorrhage (other than placenta praevia or toxæmia)	43	all good	1 died (prem.)
Breech for version	29	premature labour in one case	1 stillborn (separation of placenta)
Induction for post-maturity or slight disproportion	90	10 forcep deliveries, others spontaneous	3 stillborn.
Toxæmia (including toxic ante-partum haemorrhage)	229	20 had albumin present at 14 days, others clear	14 stillborn.
Total	588		

Complications of labour.

Forceps	113	5 cases of pyrexia	9 stillborn and 1 died.
Breech :—			
Flexed legs	31	all good	5 stillborn and 4 died (3 prem. and 1 hydrocephalic)
Extended legs	44	all good	3 stillborn and 1 died.
Bipolar Version :—			
for (a) placenta praevia	8	1 pyrexia	7 stillborn and 1 died. (prem.)
(b) Prolapsed cord	1	all good	all good
(c) Transverse presentation	1	all good	all good
Face	4	all good	2 died (prem.)
Prolapsed cord	9	all good	4 stillborn
Acute inversion of uterus	1	slight pyrexia	good.
Post-partum haemorrhage	53	see adherent placenta	all good.
Adherent placenta	16	3 pyrexia	all good.
Multiple Pregnancy :—			
Twins	24	1 White leg	3 stillborn.
Triplets	3	1 mania	1 stillborn and 2 died (prem.)

*Complications of the Puerperium.**Deaths.* 2 cases.

(1) Obstetric shock—Adherent placenta.
Twins and toxæmia of pregnancy.
(2) Pulmonary embolism.

Cases notified. 48=2.4%.

Septicaemia	....	....	....	....	....	....	....	....	1 case.
Sapraemia	....	....	....	....	....	....	....	....	16 cases.
Pyelitis	....	....	....	....	....	....	....	....	3 cases.
Mastitis	....	....	....	....	....	....	....	....	20 cases.
Acute antrum	....	....	....	....	....	....	....	....	1 case.
White leg	....	....	....	....	....	....	....	....	3 cases.
Septic perineum	....	....	....	....	....	....	....	....	2 cases.
Pyrexia of unknown origin	....	....	....	....	....	....	....	....	2 cases.
									—
									48 cases.

Other complications.

Puerperal mania	....	....	....	....	....	....	....	....	3 cases.
Toxic hepatitis	....	....	....	....	....	....	....	....	1 case.
Optic neuritis	....	....	....	....	....	....	....	....	1 case.
Mastitis (not notifiable)	....	....	....	....	....	....	....	....	14 cases.
Secondary post-partum haemorrhage (mild)	....	....	....	....	....	....	....	....	1 case.
Superficial thrombosis of varicose veins	....	....	....	....	....	....	....	....	32 cases.
									—
									52

HEATHFIELD ROAD MATERNITY HOME.

The Home has now completed a full year's work since the re-opening in May, 1933. There are 17 maternity beds and 10 ante-natal beds. The number of deliveries was 402, and in addition 40 women were treated in the ante-natal ward who were subsequently delivered in their own homes. The accommodation in the Home has proved inadequate for the numbers attending the ante-natal clinics, for the isolation of potential sepsis, and to accommodate the staff. The Committee have decided, therefore, to build an annexe which will provide premises for an ante-natal clinic, a small isolation unit, and seven staff bed-rooms.

Mastitis proved a troublesome complication, a comparatively large group of cases occurring during July and August. Although only 16 women actually had mastitis during the year while in the wards, a larger number was affected after discharge. This is the usual course, since the infection is a late one and seldom seen till after the 12th day following child-birth. There were no fatalities. In view of the prevalence of mastitis it was decided to shorten the period after delivery in the Home from 14 to 10 days, so as to diminish the number of contacts if a case occurred, sporadic cases being unavoidable. In addition, nurses were required to be fully masked when in the wards as well as in the delivery rooms and general precautions against streptococcal droplet infection were increased, in order to deal with this conceivable source of infection, despite the lack of evidence so far as concerned the general sepsis rate which was remarkably good. The etiology of human mastitis remains obscure and every precaution has to be taken which gives any hope of obviating spread of infection.

A careful investigation was made not only of the cases starting in the Home, but of those occurring in patients within three weeks of their discharge from the institution.

In 1934, 402 women were delivered, and of these 20 developed, while in the Home, mastitis leading to breast abscess. A further 17 cases occurred which were milder and apparently cleared up without abscess formation. In addition there were 7 cases of mastitis which appeared to be associated with above cases, but which did not develop until after the patient had left the Home. Six of these developed a breast abscess.

The total for all cases was 44, or 11 per cent. of the deliveries.

In addition to the usual sporadic cases it was found that the infection appeared in groups, in women who had been in the wards at the same time, and immediate isolation on onset did not affect this.

The following figures show the course followed:—

January and February	...	...	...	10 cases (group)
April	...	...	...	1 sporadic case
May	...	...	...	2 cases (group)
Early July	...	...	...	9 cases (group)
August	...	...	...	9 cases (group)
September	...	...	...	2 sporadic cases
Early October	...	...	...	2 cases (group)
Late October	...	...	...	3 cases (group)
November and December	...	...	...	6 cases (group)

These figures include the seven cases which appeared to be associated with cases in the Home, but not developing until after they were discharged.

The general results of work at Heathfield Road Maternity Home have been very satisfactory. No maternal death has to be recorded. There was no case of severe puerperal sepsis (puerperal fever).

General Report.

Number of mothers delivered	...	...	...	...	...	402
Number of babies born	...	...	...	...	...	405
Number of booked cases	...	...	...	...	...	397
Cases admitted from the Ante-natal Ward, originally booked with midwives	...	...	...	...	...	5

Report on 397 Booked Cases.

Primipara	...	...	...	52.7%
Multipara	...	...	...	47.3%

Mothers.

Number of women with normal pregnancy, labour and puerperium =	63%
Number of women with ante-natal complications =	30.9%
Number of women with complications of labour =	9%
Number of women with puerperal complication =	12.5%

Infants.

Number of infants born	...	...	...	...	...	=	400
Number premature (before 36 weeks)	...	...	...	...	...	=	9
Number of stillbirths	...	...	...	...	...	=	16
Number dying within 2 weeks	...	...	...	...	...	=	8
Number discharged alive	...	...	...	...	...	=	376

Special Rates.

Maternal mortality	...	...	...	...	...	=	0%
Maternal morbidity	...	...	...	...	...	=	2.5%
Still birth rate	...	...	...	...	...	=	4%
Neonatal mortality	...	...	...	...	...	=	2%
Forceps rate	...	...	...	...	...	=	3.77%
Cases requiring suture of perineum	...	...	...	...	...	=	26%
Number of cases delivered by midwives	...	...	...	...	...	=	374
Number of cases delivered by doctors	...	...	...	...	...	=	26
B.B.A.	...	...	...	...	...	=	2
Number of cases in which medical assistance was sought by a midwife in emergency	...	...	...	...	...	=	78
Number of cases notified as puerperal fever	...	...	...	...	...	=	Nil.
Number of cases notified as puerperal pyrexia	...	...	...	...	...	=	10
Number of cases notified as ophthalmia neonatorum	...	...	...	...	...	=	2
Number of maternal deaths	...	...	...	...	...	=	Nil.
Number admitted to ante-natal ward	...	...	...	...	...	=	210

Cases Admitted for Ante-natal Treatment. 40.

Glycosuria for investigation	....	....	....	....	....	....	....	3
Hyperemesis	....	....	....	....	....	....	....	3
Toxaemia	....	....	....	....	....	....	....	7
Pyelitis	....	....	....	....	....	....	....	2
Cervicitis	....	....	....	....	....	....	....	3
Anaemia	....	....	....	....	....	....	....	2
Cardiac disease	....	....	....	....	....	....	....	5
Debility	....	....	....	....	....	....	....	3
Thrombo phlebitis	....	....	....	....	....	....	....	2
Varicose veins	....	....	....	....	....	....	....	4
Rheumatoid arthritis	....	....	....	....	....	....	....	5
Post-encephalitic Parkinsonism	....	....	....	....	....	....	....	1

Report on 40 Unbooked Cases.

5 of these were delivered at the Home.

4 were cases of severe toxæmia.

1 of hyperemesis.

Results to mother.

Forceps delivery	....	....	....	....	....	....	....	1
Premature labour	....	....	....	....	....	....	....	1
Inductions	....	....	....	....	....	....	....	2
Still albuminuria on discharge	....	....	....	....	....	....	....	3

Results to baby.

Still born (not viable)	....	....	....	....	....	....	....	1
Others good.	....	....	....	....	....	....	....

Ante-natal Clinics.

	No. held.	New cases.	Total Attendances.
Doctors' Clinics	.... 102	488	2,088
Midwives' Clinics	.... 47		252
Total attendances	.... = 149	488	2,340

Post-natal Clinics.

Attendances	247	=	50.6%
-------------	------	------	------	------	-----	---	-------

CARE OF THE UNMARRIED MOTHER.

The method of dealing with the unmarried mother, and with married women and widows with illegitimate children, was detailed in the annual reports for 1930 and 1931.

During 1934 the same procedure as regards the institutions was followed, but the work has been extended, and every illegitimate baby, whether born at home or in an institution, has been specially visited, with the exception of cases where the parents are known to be co-habiting. A total of 390 unmarried mothers and 38 married women with illegitimate children were dealt with during 1934.

Of the total cases, 333 were first cases of illegitimacy.

The cases were dealt with as follows:—

Dealt with at	First cases.	Multiple cases.	Married Women.
Hope Lodge	.... 49	—	—
The Hawthorns (Salvation Army)	.... 20	10	—
Woodville (Roman Catholic)	.... 13	—	—
Cleveland House (Venereal Disease cases)	.... 16	—	—
The Hostel (Post-natal only)	.... 15	—	—
Western House	.... 11	11	4
Greenhill Hostel	.... 8	—	—
Own home, except for confinement	.... 108	27	13
Own home entirely	.... 93	9	21
	333	57	38

The number of cases with venereal disease was 31. All but one received systematic treatment.

The number of mentally defective women was 10.

First cases	...	...	...	...	5
Multiple cases	...	...	...	...	4
Married women	...	...	...	...	1

These were dealt with as follows:—

Five have been certified and are in institutions. Two have been examined and not yet certified, but are in an institution. The remainder have been reported to the appropriate department, and remain under supervision at home.

The subsequent history of cases dealt with in previous years is given below:—

Cases dealt with.	Further pregnancies in 1934.			
	2nd,	3rd,	4th and	5th.
1933 = 451	—
1932 = 318	—	—
1931 = 239	—	—
1930 = 222	1	—

The falling death-rate of illegitimate infants gives from one direction an indication that the efforts to help the mothers are of value, though it gives no measure of the large amount of most valuable help, whether from the physical, the social, or the moral standpoint, given to these mothers through voluntary and official agencies. While it is disappointing to find that in 24 cases dealt with during the past four years further illegitimate births have occurred, the relatively small proportion of such "failures"—1.9 per cent.—surely represents a marked degree of success on the part of the many agencies and individual workers who have brought their influence to bear on these women and girls.

INFANT LIFE PROTECTION.

The supervision of foster mothers and children has been extended under the Children and Young Persons' Act, 1932, to children up to the age of nine, and now includes all children received for reward or promise of reward apart from their parents, even for limited periods. The inspection of preparatory boarding schools becomes necessary under the new Act.

The department receives many applications for recommendations of foster mothers as well as applications for foster children, but the former being much more numerous, advertisements for suitable foster mothers have proved necessary.

The department frequently assists suitable persons wishing to adopt children.

The foster mothers on the whole co-operate in the most friendly way with the health department and when difficulties arise they frequently call on the staff to assist in their settlement. Care is taken to maintain the mother's touch with, and responsibility for, the welfare of her child placed with a foster mother.

At the end of 1934, 328 foster mothers were on the register and 338 foster children under supervision.

During the year:—

367 homes were registered.

146 applications were received for foster children.

257 applications were received from homes for children.

339 visits were paid to ascertain the suitability of homes offered.

13 visits were paid to investigate complaints.

195 foster mothers were interviewed at the Council House for advice and instruction.

Legal proceedings were found necessary in two cases.

THE FOSTER MOTHER SERVICE.

The difficulties encountered in dealing with foster children made it obvious that some organised form of assistance was required, primarily to provide a service of selected foster mothers giving a high standard of child care, where the remuneration of the foster mother was guaranteed, and where the child's mother or guardian remained in close-touch with the child, while contributing to the fullest possible extent to the child's maintenance.

After several conferences between the representatives of the Public Health, Public Assistance and Education Committees, the suggested scheme was brought before the City Council, received approval and was put into force in January, 1935.

The details of the scheme are set out below.

Its further development will be dealt with in the 1935 report.

Scheme submitted by the Public Health and Maternity and Child Welfare Committees and approved by the City Council on January 8th, 1935.

FOSTER MOTHERS.

The Council has delegated to this Committee the duties of infant life protection included in Part 1 of the Children Act, 1908.

The experience gained in this direction has shown the necessity of ensuring that foster mothers of a proper capacity are selected by parents who wish to board out children, and has indicated also the possibility of aiding the welfare of certain groups of young children not at the present dealt with under that Act.

The main classes in respect of which applications are most frequently received for assistance in the selection of a foster mother are (a) unmarried mothers; (b) widows, and (c) temporary illness or invalidity of mother.

The benefits to be derived from a scheme for the provision of approved foster mothers may be stated thus:—

- (a) The child would have a settled home instead of being constantly changed from one foster mother to another, owing to the mother's inability to keep up payment.
- (b) A better type of foster mother would be ensured.
- (c) The scheme would enable homes to be found for children whose mothers were ill at home or in hospital or sanatorium, at a minimum cost and under adequate supervision.
- (d) There would be much closer co-operation between the foster mother and the Public Health Department, allowing of better control of the conditions of life for the child.
- (e) The mother would receive every help towards keeping in close touch with her child without undue strain and anxiety. In the case where she pays the full amount of the foster mother's fees, the mother will benefit by the close supervision of the registered and carefully selected foster mother.
- (f) In the case of the unmarried mother, the scheme should have the effect of enabling the mother to leave the institution into which she has been received, at a date earlier than might otherwise be the case, and with an increased prospect of steady subsequent assistance in regaining self-respect and in settling into work.

With these considerations in view such a scheme has been prepared in conjunction with and approved by the Education and Public Assistance Committees. As the matter is one of public interest it is appended hereto in full:—

SCHEME FOR THE PROVISION OF AN APPROVED SERVICE OF FOSTER MOTHERS.

1. *Scope.*

- (i) The scheme is not intended to apply to any case in which domiciliary help is being given by the Public Assistance Committee.
- (ii) The scheme is limited to children under five years of age.

2. *Procedure.*

Applications to act as foster mothers to be invited from respectable married women; the home then to be visited and the suitability and capacity for caring for children to be assessed.

As soon as an applicant is approved as a foster mother, her name will be placed on the register of foster mothers, on an undertaking having been given by her to take any child allotted by the Public Health Department and to receive it for a specified period, say, three months. Foster mothers will be required also to keep the children entrusted to them under regular supervision at the Child Welfare Centres.

A foster mother giving unsatisfactory service will be liable to have her name removed from the register, and the child will be removed forthwith.

3. *Payments.*

Some freedom of action is desirable as regards the actual manner of payment of the foster mother. In many cases the payment will be made to the mother from the Public Health Department, by means of an order to be paid to the foster mother by her, and exchangeable for cash at the Department or at a Child Welfare Centre. This method will be encouraged to assist direct contact between mother and foster mother. In cases where this proved unsuitable, direct payment will be made to the foster mother from the Public Health Department. In either case an appropriate refund will be sought from the mother, according to her means (see 5 below).

4. *Scale of Fees.*

The following scale is proposed, subject to adjustment if necessary in the light of further experience:—

Up to one year of age	...	12s. 6d. weekly
Up to two years	...	10s. 6d. ,,
Two to five years	...	9s. 0d. ,,

Clothing allowance may be required in some instances, depending on the type of case, and such cases will be reviewed by the Committee pending further experience as to a scale of allowance.

5. *Recovery of fees from mother.*

The parents will pay the full fee payable to the foster mother where able to do so. Remission will be made on a scale to be defined after the Committee have had experience of the circumstances in a sufficient number of cases. The responsible parent will be required to sign an agreement accepting liability for payment, and bad debts will be referred to the Public Assistance Department for collection in the usual manner after due consideration by the Committee of the reasons for failure of payment.

SUPERVISION OF MIDWIVES.

During the year 1934, 225 midwives notified their intention to practise in the City. Of these 23 resided outside the City, and therefore do not come under routine inspections. Of the remainder, 4 were temporarily employed and 19 were attached to various institutions.

It is interesting to note that no less than 80 of the midwives have received recognised general training, in addition to their midwifery certificate, and that only 6 of the so-called bona fide midwives remain on the Roll, the rest having obtained their Central Midwives' Board Certificate.

During the year, 6 midwives gave up work owing to various reasons, such as old age, ill-health, or from having taken up work elsewhere.

There were 163 residing in the City and having private practices at the end of 1933, and 179 at the end of 1934.

The midwives sent for medical help in 2,479 cases, for the mother in 1,826 instances and for the child in 653.

Reasons for sending for medical help:—

For Mother—1,826.				For Child—653.			
Delayed labour	...	...	500	Ophthalmia	...	...	354
Laceration of perineum	...	...	550	Prematurity	...	...	112
Haemorrhage	...	...	165	Convulsions	...	...	5
Adherent placenta	...	...	75	Jaundee	...	...	18
Abnormal presentation	...	...	93	Deformity	...	...	56
Abortion or miscarriage	...	...	38	Skin Eruptions	...	...	16
Rise of temperature	...	...	115	Other causes	...	...	92
Other causes	...	...	290				

Four midwives were suspended during the year; two with septic hands, one with an infected throat, and one as a scarlet fever contact. There is a steady improvement in the work of practising midwives, and in no instance was it found necessary to report a midwife to the Central Midwives' Board.

The following table shows the number of cases taken by individual midwives:

Midwives taking under 50 cases per annum	126
" " 50-100	27
" " 100-150	12
" " 150-200	2
" " over 200	4

The midwives attended 7,555 cases (46 per cent. of the births and stillbirths), and in 2,208 cases they acted as maternity nurses (14 per cent. of the notified births); total, 60 per cent.

The following table is of interest:—

MIDWIVES' CASES—MEDICAL HELP CALLS.

	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.
Total cases attended	11,292	12,534	10,921	10,655	10,934	9,398	9,894	9,205	7,933	7,555
Total medical help calls	2,211	2,305	2,518	3,236	3,026	3,360	3,065	2,706	2,256	2,479
Percentage of calls	19	18	23	30	28	36	31	29	28	33
Reasons :—										
Delayed labour	580	575	628	902	806	913	758	592	432	500
Lacerated perineum	399	462	494	641	674	775	708	620	539	550
Haemorrhage	115	111	133	210	190	213	220	186	158	165
Adherent placenta	85	65	94	104	85	79	61	71	56	75
Abnormal presentation	97	103	83	91	102	131	114	106	141	93
Discharging eyes	210	287	313	374	380	461	427	379	318	354
Other causes	725	702	773	914	789	788	777	752	612	742

The following visits were paid during the year by the Midwives' Inspectors:—

Routine visits to midwives	...	...	...	...	...	...	385
Special visits to midwives	...	...	...	...	...	...	36
Visits to stillbirths	...	...	...	...	...	...	468
Visits to ophthalmia neonatorum cases	...	...	...	...	...	...	665
Visits to puerperal sepsis cases	...	...	...	...	...	...	212
Visits to nursing homes	...	...	...	...	...	...	158
Visits to handywomen	...	...	...	...	...	...	44
Other visits	...	...	...	...	...	...	185
Useless visits	...	...	...	...	...	...	371
The number of midwives interviewed was	...	...	...	...	...	...	340

ATTENDANCE AT CHILDBIRTH.

As far as can be ascertained, the births during the year were as follows:—

Births notified	...	...	...	15,942
Stillbirths notified	...	...	...	631
Failed to notify	...	...	...	319
				<hr/> 16,892

Cases at home attended by midwives:—

(a) As midwives	...	...	7,555
(b) As nurses	...	...	2,208

Cases in hospitals, homes and institutions:—

At Dudley Road Hospital	...	...	1,283
,, Selly Oak Hospital	...	...	687
,, Wake Green Road Home	...	...	573
,, Heathfield Road Home	...	...	402
,, Maternity Hospital	...	...	1,657
,, Queen's Hospital	...	...	193
,, St. Chad's Hospital	...	...	94
,, Women's Hospital	...	...	42
,, General Hospital	...	...	10
,, Other Nursing Homes	...	...	955
			<hr/> 15,659

District Midwifery.

Apart from admission to institutions, 10,996 women were delivered in private houses. The number of independent practising midwives is 179, and they attended 7,555 cases as midwives and 2,208 as nurses. There are also 9 midwives employed in seven districts (2 acting as assistants and relief midwives) for the training of midwife pupils from the Maternity Hospital. These women attended 1,567 cases. In addition medical students attended 172 cases under the arrangements made by the Maternity Hospital and 252 cases under the special arrangements made by the Queen's Hospital. The balance of district midwifery (1,233 cases or 7 per cent.) was attended by doctors assisted by relatives and handywomen. This percentage is probably not increasing, but it cannot be considered satisfactory for any woman during labour and puerperium to be without the attendance of a woman qualified midwife. The Maternity and Child Welfare Committee's decision to pay the midwife's fee in cases of unemployment where the maternity benefit has lapsed, provided home conditions are suitable for the confinement, may help to diminish the number of such cases. The fee has been paid in 70 cases during 1934.

NURSING HOMES.

The number of private nursing homes is now 49. During the year four new homes were registered, and six closed for various reasons. The majority of these homes are well run, and the standard is rising.

PROVISION OF BIRTH CONTROL CLINICS.

In June the Committee received from the Ministry of Health Circular 1408, dated May 31st, 1934, on the subject of Birth Control, and directed the Medical Officer of Health to submit a report on its subject-matter. The following report was accordingly placed before the Committee:

TO THE CHAIRMAN AND MEMBERS,
PUBLIC HEALTH AND MATERNITY AND
CHILD WELFARE COMMITTEE.

BIRTH CONTROL—CIRCULAR 1408 (MAY 31ST, 1934) FROM THE MINISTRY OF HEALTH.

I have to present the following report in accordance with the instructions of your Committee.

In Memorandum 153/M.C.W. of March, 1931, the Ministry of Health indicated that at clinics provided by local authorities for the purpose of providing medical advice and treatment for women suffering from gynaecological conditions, advice on contraceptive methods could be given, subject to its restriction to married women who need medical advice and treatment for gynaecological conditions, and in whose cases pregnancy would be detrimental to health.

The present Circular No. 1408 is issued by the Ministry of Health in the light of the Final Report of the Departmental Committee on Maternal Mortality and Morbidity, published in 1932, in which were expressed views as to the importance of avoidance of pregnancy "by women suffering from organic disease such as tuberculosis, heart disease, diabetes, chronic nephritis, etc., in which child-bearing is likely seriously to endanger life." In view of this, the Ministry now rule that, "when a clinic has been established at which medical advice and treatment are available for married women suffering from gynaecological conditions, and at which contraceptive advice is afforded to married women so suffering in whose cases pregnancy would be detrimental to health, it would be proper also for married women suffering from other forms of sickness, physical or mental, such as those mentioned in the Report of the Departmental Committee, which are detrimental to them as mothers, to be afforded contraceptive advice at the clinic if it is found medically that pregnancy would be detrimental to health."

The provision of advice on contraception, therefore, is limited to (a) advice to be given at a clinic at which medical advice and treatment are available for gynaecological conditions; (b) advice to be given to married women only; (c) who are found medically to be suffering from serious physical or mental sickness or from gynaecological conditions (d) "detrimental to them as mothers," "where pregnancy would be (medically), detrimental to health"; and (e) "what is, or is not, medically detrimental to health must be decided by the professional judgment of the registered medical practitioner in charge of the clinic."

The present position.

Your Committee will remember that this matter has been under review on a number of occasions during the past three years, and that, in accordance with the recommendations in various reports which you have received from me on the subject, you have not provided any instruction in contraceptive methods at Council clinics. The ante-natal and post-natal clinics held at a considerable number of the child welfare centres would in any case not come within the category of clinics appropriate for such purpose, for they provide advice only, but not treatment, for a variety of conditions, mainly obstetric but in part more generally gynaecological, bearing on the woman's health as a mother. Apart from this, your Committee have at Dudley Road and Selly Oak Hospitals, definite gynaecological clinics at which advice and treatment are provided for gynaecological conditions. No instruction in contraceptive methods is given at these clinics.

While your Committee have not provided clinics for giving instruction in the use of contraceptives, you have not placed obstacles in the way of any child welfare medical officer who may feel it desirable to refer married women seen at an ante-natal or other clinic to the voluntary Birth Control Clinic established in the City.

Ministry of Health Circular 1408 (May 31st, 1934).

The special features of this Circular were summarised in the opening section of this report.

The Circular appears to me to be based on tacit assumptions in three directions which I regard as open to challenge. These assumptions are: (1) that the Circular has defined, in a degree sufficient to prevent abuse, the conditions of ill-health justifying the avoidance of pregnancy; (2) that the only method of avoiding pregnancy is by the use of artificial measures of birth control; and (3) that the method of artificial birth control is one which can be adopted without hesitation where certain conditions of ill-health exist, without fear on the one hand of failure of the method to effect its purpose, and without fear on the other hand of reactions on the married relation in any direction other than that of safeguarding physical or mental health and of preventing conception.

I have respectfully to submit the following comments on these assumptions, and to ask your Committee's indulgence if the exploration of this most important problem takes me, as it must do, into a domain into which a medical officer of health enters only with hesitation.

(1) The clarity of definition of physical and of mental health.

(a) The Circular extends the scope of contraceptive advice, beyond the gynaecological case, to certain serious *physical sickness* such as "tuberculosis, heart disease, diabetes, chronic nephritis, etc." But this apparent limitation of the type of physical sickness seems to be wholly defeated by the almost indefinitely wide interpretation capable of being read into the ruling that what is, or is not, detrimental to health must be decided by the medical officer in charge of the clinic.

(b) The Ministry of Health have themselves added "*mental sickness*" to the list of conditions of "*physical sickness*" mentioned in the Report of the Departmental Committee. In doing so they have given the widest loophole imaginable for the inclusion of social as distinct from medical reasons for contraception.

Neither the medical officers of gynaecological clinics who are to be the arbiters, nor those of child welfare centres, who may refer patients to those clinics, are selected for their duties because of their experience of "*mental sickness*," but on account of a very different experience; while the medical officers of gynaecological clinics in the sense of the Circular will have only a remote knowledge of the individual patient's home circumstances bearing on the causation of such "*mental sickness*" as she is regarded as exhibiting. Such medical officers may, therefore, in all conscientiousness, bring within the scope of the term mental sickness conditions of mental stress, anxiety, worry, nervous tension, or irritability, some of which may be the product, and in some cases the comparatively easily remedied product of the social environment, habitual or temporary; while others of these conditions may even, not inconceivably, be best cured by further pregnancy.

The Ministry have, therefore, opened the door to the enthusiastic medical officer who can become so absorbed with the physical and mental stress of individual patients as to fail to think of other aspects of the married relation, and to include under the heading of "*mental sickness*" conditions which are strictly social and not medical in character.

(2) The alternative to artificial contraception.

The Circular ignores the possibility and the desirability of personal self-restraint in the married relation over periods short or long, to the extent where necessary of complete abstinence from sexual relations, as an alternative method of birth control safeguarding the highest interests of the mutual self-respect of husband and wife. That such self-restraint is in fact capable of being practised, and is being practised, among working-class couples, has already been indicated to your Committee in a previous report quoting data collected by a consistent supporter of the policy of birth control; and I need not repeat the particulars here. It is the too complacent general assumption of the impracticability of self-restraint, and the underlying meaning of such an assumption, that I wish particularly to oppose in a later section of this report.

(3) Dangers inherent in artificial contraception.

I am deeply convinced of and concerned about the grave danger to the foundations of the married relation for very many couples involved in the adoption of the easy course of artificial contraception, which allows of indulgence in physical pleasure without concern for the consequences. It is just because that easy way has been so largely accepted that society is, in my view, in the gravest danger of becoming insensitive to the loss of certain vital elements of self-restraint or of self-giving, in the absence of which the marriage becomes ordinary and tepid, to the immeasurable harm of the married couple, of their children, and of society.

General observations.

Assuming that all the difficulties in the vagueness of definition of the Ministry's Circular could be overcome and that only women physically or mentally unfit for pregnancy were submitted for contraceptive advice, there remain several issues needing consideration:—

(1) There is nothing to suggest that the husbands of these women are less capable than other husbands of exercising self-restraint; and they have a far more potent reason for doing so than other husbands. If birth control is not to be taught to others, there is no case on this ground for the instruction of this particular group.

(2) The giving of contraceptive advice does not in fact free the mother from all anxiety or danger, for contraceptive methods are not invariably successful; and the married couple may only too easily assume a safety from consequences which may not be justified.

(3) The basic reason, in my view, for a local authority to refrain from taking part in the giving of contraceptive advice to any section whatever of the married population lies in the meaning and dignity of marriage itself and the fundamental importance of fostering the true ideals and rejecting the false ideals of marriage.

The fundamental flaw in all this present-day movement lies in the assumption that the *physical* aspect of marriage is the most fundamental, to which all others must give way; and that nothing else needs serious consideration at the same time. No other aspect of marriage is discussed in the two memoranda from the Ministry of Health on this subject. I cannot accept such a viewpoint, but feel it all-important that representatives of local authorities, as guardians of the best interests of the people, should uphold the view that the physical is only one of the elements making up the ideal marriage, and not the most essential element, however much in itself desirable; and that in ideal marriage the physical has to take its place with, and where necessary give way to, the non-physical aspect of marriage. Every husband living the true married life, in which both are equal parties with neither forcing the other into an unwilling subordination, knows not merely the possibility but the utter necessity of self-control and abstinence in the married relation, its need for true happiness in marriage. The methods of birth control which allow of physical satisfaction without the after-result of pregnancy are repugnant, and rightly repugnant, to the instinct of most couples when first tried. The fact that the repugnance can wear off may be a sign, not that the first instinct was wrong, but that the conscience has become hardened and the married relation a less sensitive one.

It may be said, and said truly, that in the world of daily experience we are dealing not with ideal marriages but with many unideal marriages; and it may be argued that we must take the facts as we find them. So far as local authorities and contraceptives are concerned, the question of the marriage unideal from incompatibility of temperament or brutality of treatment does not arise. We must certainly take the facts as we find them and recognise difficulty and lack of idealism in individual marriages; but it is not for the local authority then to take a course which relieves the physical burden, but does so only at the grave risk of fixing that unideal relation at a plane permanently disappointing the potentialities of both parties to the marriage. The way out of unhappiness of this sort is not to offer the easy and deceptive way of physical ease. The way is rather for society at large, and for the kindly individual in society who has personal knowledge of the ideal in marriage as a part of the Christian life, so to reach the heart of husband and wife as to give or restore to them that self-same ideal, and to help towards the self-restraint and control which is one means of expression of marriage at its highest.

It is very natural indeed that the form of help offered by artificial birth control should be offered to the woman hampered, among other reasons, by physical disease. Yet it seems to me to be analogous to the well-meant but sometimes disastrous charity which gives money when what is in fact needed is a much more searching enquiry for the root of the trouble, and a totally different form of help. The remedy of artificial birth control in such a case is a superficial remedy, which is no remedy in any real sense, of the fundamental difficulty of this marriage; and the giving of the superficial remedy may well prevent any deeper and more fundamental remedy being found.

To the argument that it is not for the local authority to reach that more fundamental level, I should agree in general terms: it is for society at large, of which the local authority forms a part. But if that be granted, it is no reason for the local authority to take a course which may *hinder* further effort towards a more basic solution of the difficulty. If it can, the local authority must raise the actual into the ideal; if it cannot, then at least it must not fix the unideal. I would, therefore, beg your Committee to be very careful not to allow yourselves, from the kindest of intentions towards these sadly difficult cases of difficult marriage, to adopt the course of affording advice which may force the couple irretrievably to a plane of marriage below its true ideal, however much that marriage may be below the ideal at the present time.

It will be evident that I feel as strongly as ever that your Committee would be acting in a direction contrary to the best interests of the community were you now to vary your decision not to establish arrangements whereby instruction in artificial birth control could be given.

H. P. NEWSHOLME,

Medical Officer of Health.

The Committee gave careful consideration to the report, but decided by a majority vote to adopt the principle of providing facilities for birth control instruction in suitable cases, and of recommending the City Council that a clinic be set up. The matter was, however, again discussed at a subsequent meeting of the Committee, and by a majority vote the previous resolution was rescinded.

At the City Council Meeting on January 8th, 1935, an amendment to the Public Health and Maternity and Child Welfare Committee's report was moved by Mr. Alderman Pritchett, and adopted on a vote of 58 for, 55 against, that :

"The Council, approving of the principle of providing so far as it is lawful facilities for advice and instruction in methods of birth control to married women in whose cases pregnancy would be detrimental to health, instructs the Public Health and Maternity and Child Welfare Committee to report upon the appropriate means of providing such facilities."

While the subsequent course of events falls properly into the next annual report, it may be added, for the sake of completeness, that the Public Health Committee later obtained the approval of the City Council to a scheme for two birth control clinics to be established, one at Dudley Road Hospital, the other at Selly Oak Hospital; and that at the time of preparation of the present annual report arrangements were approaching completion for the establishment of these clinics and the effective fulfilment of the City Council's instructions.

TABLE I. VITAL STATISTICS DURING 1934 AND PREVIOUS YEARS.

YEAR.	Birth-rate Rate per 1,000 Births	Death-rate Rate per 1,000 Deaths	Population Estimated to middle of each year.	DEATH-RATES PER 1,000 OF POPULATION FROM:—									
				Tuberculosis			Respiratory			Other Forms			Cancer
1901	760,989	31.4	17.5	176	.18	.49	.23	.39	.16	1.47	.52	.73	?
1902	768,757	31.2	16.3	144	.17	.01	.31	.47	.24	.12	1.38	.37	?
1903	776,604	30.9	15.8	147	.10	.02	.32	.25	.16	.23	.48	.76	?
1904	784,532	31.0	17.7	179	.08	.06	.00	.38	.08	.26	.17	.45	?
1905	792,540	29.0	15.1	141	.06	.00	.00	.31	.11	.75	.21	.13	?
Average	30.7	16.5	157	12	.01	.36	.22	.41	.20	1.34	.45	.74	?
1906	800,631	29.4	15.9	157	.07	.05	.00	.34	.09	.44	.17	.15	?
1907	808,803	28.8	15.3	133	.09	—	—	.51	.15	.30	.20	.16	?
1908	817,060	29.1	15.3	130	.07	—	—	.08	.15	.49	.20	.31	?
1909	825,400	27.4	15.1	121	.04	—	—	.82	.18	.23	.20	.18	?
1910	833,826	26.8	13.2	115	.04	—	—	.05	.14	.34	.13	.11	?
Average	28.3	15.0	131	.06	—	—	—	.36	.14	.36	.18	.18	?
1911	842,337	26.1	15.0	150	.04	.00	.00	.47	.10	.17	.13	.09	?
1912	850,947	26.1	14.1	111	.04	—	—	.67	.18	.39	.12	.12	?
1913	859,644	27.3	14.9	129	.02	—	—	.46	.20	.19	.19	.13	?
1914	882,534	26.4	14.8	122	.02	—	—	.35	.17	.35	.30	.16	?
1915	891,234	23.8	14.4	118	.01	—	—	.47	.07	.14	.15	.16	?
Average	25.9	14.6	126	.03	.00	.48	.14	.25	.18	1.22	.29	.94	?
1916	895,678	23.1	13.5	104	.01	—	—	.11	.03	.42	.13	.16	?
1917	900,000	19.7	12.6	101	.01	—	—	.37	.01	.14	.13	.11	?
1918	870,000	19.4	15.2	99	.01	—	—	.08	.01	.32	.18	.25	?
1919	910,000	20.9	13.0	84	.01	—	—	.20	.05	.06	.14	.15	?
1920	910,000	27.6	12.6	83	—	—	—	.16	.12	.20	.22	.46	?
Average	22.1	13.4	94	.01	—	.18	.04	.23	.16	.88	1.18	.22	?
1921	919,683	24.1	11.3	83	.01	—	—	.17	.04	.10	.13	.15	?
1922	927,844	21.5	12.1	86	.00	—	—	.09	.04	.38	.10	.48	?
1923	936,079	20.4	11.0	72	.00	—	—	.20	.04	.05	.15	.28	?
1924	944,386	19.2	11.6	83	.01	—	—	.08	.02	.19	.10	.39	?
1925	952,766	18.8	11.7	78	.00	—	—	.11	.02	.23	.10	.39	?
Average	20.8	11.5	80	.00	—	.13	.03	.19	.12	.34	.96	.15	?
1926	961,222	18.7	11.3	73	.00	—	—	.08	.01	.13	.12	.27	?
1927	969,752	17.8	11.6	75	.00	—	—	.13	.01	.07	.06	.41	?
1928	976,500	17.6	10.9	65	.00	—	—	.04	.01	.17	.07	.13	?
1929	981,000	17.1	13.5	79	.00	—	—	.20	.01	.13	.09	.94	?
1930	982,000	17.7	10.8	60	.01	—	—	.06	.02	.11	.09	.13	?
Average	17.8	11.6	70	.00	—	.10	.01	.12	.09	.41	.91	.13	?
1931	1,011,300	16.9	11.7	71	.00	—	—	.18	.01	.09	.06	.27	?
1932	1,017,500	16.3	11.3	67	.00	—	—	.05	.01	.13	.03	.36	?
1933	1,023,500	14.7	11.0	66	.00	—	—	.08	.02	.03	.44	.85	?
1934	1,028,000	15.3	11.0	68	.01	—	—	.02	.01	.11	.08	.71	?

* Exclusive of General Paralysis.

YEAR.	Birth-rate Rate per 1,000 Births	Population Estimated to middle of each year.	Estimated to middle of each year.	DEATH-RATES PER 1,000 Births.			
				Other Accidents etc. (Under 1)	Malformations etc. (Under 1)	Infantile Deaths etc. (Under 2)	Other Deaths etc. (Under 2)
1901	31.4	17.5	176	.18	.49	.23	.39
1902	31.2	16.3	144	.17	.31	.43	.47
1903	30.9	15.8	147	.10	.32	.25	.47
1904	30.7	15.9	179	.08	.38	.08	.48
1905	29.0	15.1	141	.06	.31	.11	.45
Average	30.7	16.5	157	.12	.01	.36	.22
1906	800,631	29.4	15.9	157	.07	.05	.14
1907	808,803	28.8	15.3	133	.09	—	—
1908	817,060	29.1	15.3	130	.07	—	—
1909	825,400	27.4	15.1	121	.04	—	—
1910	833,826	26.8	13.2	115	.04	—	—
Average	28.3	15.0	131	.06	—	—	—
1911	842,337	26.1	15.0	150	.04	—	—
1912	850,947	26.1	14.1	111	.04	—	—
1913	859,644	27.3	14.9	129	.02	—	—
1914	882,534	26.4	14.8	122	.02	—	—
1915	891,234	23.8	14.4	118	.01	—	—
Average	25.9	14.6	126	.03	.00	.48	.14
1916	895,678	23.1	13.5	104	.01	—	—
1917	900,000	19.7	12.6	101	.01	—	—
1918	870,000	19.4	15.2	99	.01	—	—
1919	910,000	20.9	13.0	84	.01	—	—
1920	910,000	27.6	12.6	83	—	—	—
Average	22.1	13.4	94	.01	—	.18	.04
1921	919,683	24.1	11.3	83	.01	—	—
1922	927,844	21.5	12.1	86	.00	—	—
1923	936,079	20.4	11.0	72	.00	—	—
1924	944,386	19.2	11.6	83	.01	—	—
1925	952,766	18.8	11.7	78	.00	—	—
Average	20.8	11.5	80	.00	—	.13	.03
1926	961,222	18.7	11.3	73	.00	—	—
1927	969,752	17.8	11.6	75	.00	—	—
1928	976,500	17.6	10.9	65	.00	—	—
1929	981,000	17.1	13.5	79	.00	—	—
1930	982,000	17.7	10.8	60	.01	—	—
Average	17.8	11.6	70	.00	—	.10	.01
1931	1,011,300	16.9	11.7	71	.00	—	—
1932	1,017,500	16.3	11.3	67	.00	—	—
1933	1,023,500	14.7	11.0	66	.00	—	—
1934	1,028,000	15.3	11.0	68	.01	—	—

YEAR.	Birth-rate Rate per 1,000 Births	Population Estimated to middle of each year.	Other Accidents etc. (Under 1)	DEATH-RATES PER 1,000 Births.			
				Other Violence etc. (Under 1)	Malformations etc. (Under 1)	Infantile Deaths etc. (Under 2)	Other Deaths etc. (Under 2)
1901	31.4	17.5	.18	.49	.23	.39	.39
1902	31.2	16.3	.17	.31	.25	.47	.47
1903	30.9	15.8	.10	.23	.16	.45	.45
1904	30.7	15.9	.08	.26	.17	.41	.41
1905	29.0	15.1	.06	.31	.11	.44	.44
Average	30.7	16.5	.12	.01	.20	.45	.45
1906	800,631	29.4	15.9	.07	.34	.37	.37
1907	808,803	28.8	15.3	.09	.30	.40	.40
1908	817,060	29.1	15.3	.07	.23	.30	.30
1909	825,400	27.4	15.1	.04	.20	.32	.32
1910	833,826	26.8	13.2	.04	.17	.32	.32
Average	28.3	15.0	.06	.00	.13	.36	.36
1911	842,337	26.1	15.0	.04	.10	.32	.32
1912	850,947	26.1	14.1	.04	.12	.24	.24
1913	859,644	27.3	14.9	.02	.19	.34	.34
1914	882,534	26.4	14.8	.02	.13	.30	.30
1915	891,234	23.8	14.4	.01	.15	.28	.28
Average	25.9	14.6	.03	.00	.18	.32	.32
1916	895,678	23.1	13.5	.01	.11	.29	.29
1917	900,000	19.7	12.6	.01	.14	.24	.24
1918	870,000	19.4	15.2	.01	.14	.32	.32
1919	910,000	20.9	13.0	.01	.14	.38	.38
1920	910,000	27.6	12.6	.01	.16	.20	.20
Average	22.1	13.4	.04	.01	.18	.22	.22
1921	919,683	24.1	11.3	.01	.10	.38	.38
1922	927,844	21.5	12.1	.01	.13	.48	.48
1923	936,079	20.4	11.0	.01	.13	.58	.58
1924	944,386						

TABLE II.
CAUSES OF DEATH AT DIFFERENT AGE PERIODS IN 1934.

No.	Causes of Death.	Sex	AGES AT DEATH.									All Ages.
			0-	1-	2-	5-	15-	25-	45-	65-	75-	
1.	Typhoid and Para-typhoid Fevers ...	M.	—	—	—	1	1	—	—	—	—	2
		F.	—	—	—	—	—	2	1	1	—	4
1a.	Small Pox ...	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	—	—	—	—	—	—
2.	Measles ...	M.	1	7	1	2	—	—	—	—	—	11
		F.	3	3	3	3	—	—	—	—	—	12
3.	Scarlet Fever ...	M.	—	—	2	1	—	1	—	—	—	4
		F.	2	4	3	2	—	—	—	—	—	11
4.	Whooping Cough ...	M.	25	15	7	—	—	—	—	—	—	47
		F.	27	22	17	2	—	—	—	—	—	68
5.	Diphtheria ...	M.	3	1	14	24	3	1	—	—	—	46
		F.	1	2	11	22	1	—	—	—	—	38
6.	Influenza ...	M.	3	1	1	—	1	21	44	12	11	94
		F.	3	1	2	4	1	10	33	16	24	94
6a.	Poliomyelitis ...	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	—	—	—	—	—	—
7.	Encephalitis Lethargica	M.	—	—	—	1	2	3	2	—	1	9
		F.	—	—	—	—	1	1	2	—	—	4
8.	Cerebro-Spinal Fever	M.	7	—	—	—	—	3	—	—	—	10
		F.	4	—	—	1	1	—	1	—	—	7
9.	Tuberculosis of Respir. System ...	M.	2	—	2	1	61	159	178	27	5	435
		F.	2	—	1	5	91	132	59	7	—	297
10a.	Tubercular Meningitis	M.	—	2	9	4	4	1	—	—	—	20
		F.	—	2	4	4	2	1	—	—	—	13
10b.	Tuberculosis of the Abdomen ...	M.	—	—	1	2	—	—	1	1	—	4
		F.	—	—	—	1	—	—	1	1	—	3
10c.	Tuberculosis of Spinal Column ...	M.	—	—	—	—	—	2	2	1	—	5
		F.	—	—	—	—	1	1	1	—	—	3
10d.	Tuberculosis of Joints	M.	—	—	—	1	—	—	—	—	—	1
		F.	—	—	—	—	—	—	—	—	—	—
10e.	Disseminated Tuberculosis ...	M.	2	2	2	3	2	1	5	—	—	17
		F.	1	—	1	1	1	3	—	—	—	7
10f.	Tuberculosis of Glands and other parts ...	M.	—	—	—	—	2	—	2	1	—	5
		F.	—	1	—	1	1	—	1	—	—	4
11.	Syphilis ...	M.	3	—	—	—	—	—	5	35	10	3
		F.	1	—	—	—	—	5	12	—	—	18
12.	Gen. Paralysis of Insane Tabes Dorsalis ...	M.	—	—	—	—	1	5	12	8	3	29
		F.	—	—	—	—	—	2	3	—	—	5
13a.	Cancer of Buccal Cavity and Pharynx ...	M.	—	—	—	1	1	1	29	33	8	73
		F.	—	—	—	—	—	1	7	5	1	14
13b.	Œsop., Stomach, Liver, Pancreas	M.	—	—	—	—	1	10	96	89	24	220
		F.	—	—	—	—	1	14	80	64	35	194
13c.	Peritoneum and Intestines ...	M.	—	—	1	1	—	2	81	70	29	184
		F.	—	—	—	—	2	7	58	59	51	177
13d.	Female Organs ...	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	1	1	18	82	21	11	134
13e.	Breast ...	M.	—	—	—	—	—	—	1	1	—	2
		F.	—	—	—	—	—	21	92	28	31	172
13f.	Skin ...	M.	—	—	—	—	—	—	1	—	—	1
		F.	—	—	—	—	—	—	1	—	5	6
13g.	Other Organs ...	M.	1	—	1	1	2	15	112	60	20	212
		F.	—	—	1	1	1	9	37	20	11	80
14.	Diabetes ...	M.	—	—	—	1	3	5	19	24	10	62
		F.	—	—	—	2	—	3	35	37	13	90

TABLE II.—*continued.*
CAUSES OF DEATH AT DIFFERENT AGE PERIODS IN 1934.

No.	Causes of Death.	Sex.	AGES AT DEATH.									All Ages	
			0-	1-	2-	5-	15-	25-	45-	65-	75-		
14a.	Rheumatic Fever ...	M.	—	—	—	16	10	9	1	1	—	37	
		F.	—	—	1	19	13	12	8	3	1	57	
14b.	Chronic Rheumatism Osteo-Arthritis ...	M.	—	—	—	1	—	—	13	5	10	29	
		F.	—	—	—	—	—	1	22	18	27	68	
15.	Cerebral Haemorrhage, etc.	M.	—	—	—	—	1	5	55	67	60	188	
		F.	—	—	—	—	—	7	67	111	104	289	
15a.	Other Nervous Diseases and Sense Organs ...	M.	30	7	6	19	12	17	29	25	14	159	
		F.	23	7	6	12	6	16	35	24	14	143	
16.	Heart Disease ...	M.	—	2	2	4	8	66	364	452	376	1274	
		F.	1	—	1	6	21	63	248	401	510	1251	
17.	Aneurysm	M.	—	—	—	—	1	6	15	3	1	26	
		F.	—	—	—	—	—	4	7	8	2	21	
18.	Arterio-Sclerosis and other Circ. Diseases	M.	—	1	—	—	1	4	69	104	105	284	
		F.	—	—	—	—	—	3	77	78	112	270	
19.	Bronchitis	M.	12	—	—	—	3	6	29	39	53	142	
		F.	3	1	1	1	2	1	23	39	82	153	
20.	Pneumonia (all forms)	M.	94	27	18	10	17	99	180	66	42	553	
		F.	51	25	13	12	6	31	57	55	36	286	
21.	Other Respir. Diseases	M.	3	—	2	5	1	14	42	20	11	98	
		F.	5	1	—	2	2	10	18	14	14	66	
22.	Peptic Ulcer	M.	—	—	—	—	2	20	58	15	6	101	
		F.	1	—	—	—	1	3	23	8	2	38	
23.	Diarrhoea and Enteritis	M.	81	3	4	—	1	—	4	6	3	102	
		F.	46	7	2	—	1	2	2	4	2	66	
24.	Appendicitis	M.	—	—	—	3	8	8	10	2	2	33	
		F.	—	—	3	4	2	9	11	2	2	33	
25.	Cirrhosis of Liver ...	M.	—	—	—	—	—	1	18	6	—	25	
		F.	—	—	—	1	—	—	10	1	1	13	
26.	Other Dis. of Liver, etc.	M.	—	—	—	—	—	4	7	7	4	22	
		F.	—	—	—	—	—	1	14	20	11	46	
27.	Other Digestive Diseases	M.	8	2	4	4	3	14	27	24	13	99	
		F.	3	5	5	10	3	12	31	23	21	113	
28.	Acute and Chronic Nephritis	M.	2	1	—	3	9	19	53	43	24	154	
		F.	1	—	—	2	4	24	63	27	23	144	
28a.	Other Genito-Urinary Diseases	M.	3	—	—	—	2	8	28	40	43	124	
		F.	3	—	—	1	2	8	12	3	6	35	
29.	Puerperal Sepsis ...	M.	—	—	—	—	—	—	—	—	—	—	
		F.	—	—	—	—	5	24	—	—	—	29	
30.	Other Puerperal Causes	M.	—	—	—	—	—	—	—	—	—	—	
		F.	—	—	—	—	4	27	—	—	—	31	
31.	Congenital Debility, Premature Birth, Malformations, etc.	M.	308	2	—	—	—	2	1	—	—	313	
		F.	241	2	1	1	1	1	—	—	—	247	
32.	Senility	M.	—	—	—	—	—	—	2	13	69	84	
		F.	—	—	—	—	—	—	3	17	136	156	
33.	Suicide	M.	—	—	—	1	5	34	43	14	2	99	
		F.	—	—	—	—	7	22	27	6	1	63	
34.	Other Violence ...	M.	5	5	15	30	34	49	45	30	32	245	
		F.	7	1	8	11	12	5	36	31	36	147	
35.	Other Causes	M.	23	4	2	11	4	31	58	36	12	181	
		F.	16	5	6	7	5	43	74	31	19	206	
		M.	616	82	94	151	206	651	1771	1354	996	5921	
		F.	445	89	90	139	202	560	1374	1183	1344	5426	

TABLE III. *Births and Deaths Registered in, or belonging to, each Ward during the Year ending December 31st, 1934*

TABLE III. (Continued).

CAUSES OF DEATH.	Sex.	Total of City											
		Not Located						Vardley					
Syphilis	M. 4	F. 1	5	1	1	2	1	1	1	1	1	56
Gen. Paralysis of Insane, Tabes Dorsalis...	...	M. 1	F. 1	3	1	1	2	1	1	1	1	1	18
CANCER OF		M. 1	F. 1	13	7	10	5	8	5	10	3	2	29
Buccal Cavity and Pharynx ...		M. 2	F. 2	1	1	1	1	1	1	1	1	1	5
Oesop., Stomach, Liver, Pancreas ...		M. 14	F. 10	6	7	5	4	3	2	1	3	2	73
Peritoneum & Intest.		M. 15	F. 15	9	9	7	2	4	2	9	7	4	14
Female Organs		M. 7	F. 3	12	9	11	4	7	2	1	7	4	220
Breast	...	M. 3	F. 8	10	5	4	6	4	2	3	1	3	194
Skin	...	M. 1	F. 7	8	5	2	4	3	1	1	3	2	184
Other Organs	...	M. 1	F. 1	9	1	2	3	2	1	1	1	1	177
Diabetes	...	M. 3	F. 4	1	1	1	1	1	1	1	1	1	—
Rheumatic Fever	...	M. 1	F. 1	2	1	2	1	1	1	1	1	1	134
Chronic Rheumatism		M. 7	F. 11	4	2	4	2	3	1	1	1	1	2
Osteo-Arthritis...		M. 6	F. 17	6	2	6	1	1	1	1	1	1	2
Cerebral Haemorrhage, etc		M. 7	F. 7	7	6	3	6	2	4	3	1	1	2
Other Nervous Diseases and Sense Organs	...	M. 47	F. 57	58	60	61	46	37	25	36	19	19	14
Heart Disease	...	M. 56	F. 30	56	45	43	45	28	21	20	28	32	3
Aneurysm	...	M. 2	F. 1	—	1	1	1	1	1	1	1	1	1
Arterio-Sclerosis and other Circ. Diseases	...	M. 13	F. 11	8	5	19	8	10	4	2	10	8	2
Bronchitis...	...	M. 11	F. 11	7	5	18	2	13	6	9	14	8	1
Pneumonia (all forms)	...	M. 26	F. 19	22	26	30	30	18	14	13	9	10	5
Other Respir. Diseases	...	M. 8	F. 5	6	4	5	1	1	2	2	5	5	1
		F. 3	F. 5	1	1	2	1	1	2	1	2	1	2

TABLE III. *Continued.*

CAUSES OF DEATH.		Sex.	Total for City											
			Not Located						Vardley					
		Washwood Heath						Sparkhill						
		Soho						Sparkbrook						
Peptic Ulcer	...	M.	4	2	...	F.	4	1	2	3	2	4	101	38
Diarrhoea and Enteritis...		M.	4	5	3	M.	4	1	2	3	6	4	102	66
Appendicitis	...	M.	5	1	1	M.	2	1	1	1	1	2	33	33
Cirrhosis of Liver	...	M.	2	1	1	M.	1	1	1	1	1	1	13	25
Other Dis. of Liver, etc....		M.	—	—	—	M.	—	—	—	—	—	—	22	46
Other Digestive Diseases		M.	—	—	—	M.	—	—	—	—	—	—	99	113
Acute and Chronic Nephritis	...	M.	9	10	14	M.	8	4	1	2	3	5	6	2
Other Genito-Urinary Dis.		M.	9	2	6	M.	10	3	1	1	1	2	6	7
Puerperal Sepsis ...		M.	—	1	1	M.	—	1	1	1	1	1	1	1
Other Puerperal Causes ...		M.	—	—	—	M.	—	—	—	—	—	—	—	—
Congenital Debility, Premature Birth, Mal-formations, etc.	...	M.	23	15	8	M.	15	7	5	7	8	10	16	313
Senility ...	...	M.	14	8	5	M.	13	4	3	5	9	10	6	247
Suicide ...	...	M.	3	9	7	M.	7	5	2	1	2	5	4	84
Other Violence ...	...	M.	4	3	2	M.	3	3	1	1	2	3	5	156
Other Causes ...	...	M.	13	8	14	M.	8	15	1	1	2	1	3	99
		M.	13	8	10	M.	4	10	1	1	5	6	4	63
		M.	13	6	11	M.	5	6	1	1	5	6	5	245
		M.	8	9	6	M.	7	7	5	4	6	7	6	147
		F.	—	—	—	M.	4	4	4	4	4	5	6	181
		F.	—	—	—	M.	6	10	4	5	6	2	8	181
		F.	—	—	—	M.	7	7	5	4	6	6	9	206
		F.	—	—	—	M.	4	4	4	4	5	6	11	3
		F.	—	—	—	M.	6	6	11	11	11	11	11	313
		F.	—	—	—	M.	6	6	6	6	6	6	6	247
		F.	—	—	—	M.	7	7	7	7	7	7	7	84
		F.	—	—	—	M.	8	8	8	8	8	8	8	156
		F.	—	—	—	M.	9	9	9	9	9	9	9	99
		F.	—	—	—	M.	10	10	10	10	10	10	10	99
		F.	—	—	—	M.	11	11	11	11	11	11	11	113
		F.	—	—	—	M.	12	12	12	12	12	12	12	123
		F.	—	—	—	M.	13	13	13	13	13	13	13	13
		F.	—	—	—	M.	14	14	14	14	14	14	14	14
		F.	—	—	—	M.	15	15	15	15	15	15	15	15
		F.	—	—	—	M.	16	16	16	16	16	16	16	16
		F.	—	—	—	M.	17	17	17	17	17	17	17	17
		F.	—	—	—	M.	18	18	18	18	18	18	18	18
		F.	—	—	—	M.	19	19	19	19	19	19	19	19
		F.	—	—	—	M.	20	20	20	20	20	20	20	20
		F.	—	—	—	M.	21	21	21	21	21	21	21	21
		F.	—	—	—	M.	22	22	22	22	22	22	22	22
		F.	—	—	—	M.	23	23	23	23	23	23	23	23
		F.	—	—	—	M.	24	24	24	24	24	24	24	24
		F.	—	—	—	M.	25	25	25	25	25	25	25	25
		F.	—	—	—	M.	26	26	26	26	26	26	26	26
		F.	—	—	—	M.	27	27	27	27	27	27	27	27
		F.	—	—	—	M.	28	28	28	28	28	28	28	28
		F.	—	—	—	M.	29	29	29	29	29	29	29	29
		F.	—	—	—	M.	30	30	30	30	30	30	30	30
		F.	—	—	—	M.	31	31	31	31	31	31	31	31
		F.	—	—	—	M.	32	32	32	32	32	32	32	32
		F.	—	—	—	M.	33	33	33	33	33	33	33	33
		F.	—	—	—	M.	34	34	34	34	34	34	34	34
		F.	—	—	—	M.	35	35	35	35	35	35	35	35
		F.	—	—	—	M.	36	36	36	36	36	36	36	36
		F.	—	—	—	M.	37	37	37	37	37	37	37	37
		F.	—	—	—	M.	38	38	38	38	38	38	38	38
		F.	—	—	—	M.	39	39	39	39	39	39	39	39
		F.	—	—	—	M.	40	40	40	40	40	40	40	40
		F.	—	—	—	M.	41	41	41	41	41	41	41	41
		F.	—	—	—	M.	42	42	42	42	42	42	42	42
		F.	—	—	—	M.	43	43	43	43	43	43	43	43
		F.	—	—	—	M.	44	44	44	44	44	44	44	44
		F.	—	—	—	M.	45	45	45	45	45	45	45	45
		F.	—	—	—	M.	46	46	46	46	46	46	46	46
		F.	—	—	—	M.	47	47	47	47	47	47	47	47
		F.	—	—	—	M.	48	48	48	48	48	48	48	48
		F.	—	—	—	M.	49	49	49	49	49	49	49	49
		F.	—	—	—	M.	50	50	50	50	50	50	50	50
		F.	—	—	—	M.	51	51	51	51	51	51	51	51
		F.	—	—	—	M.	52	52	52	52	52	52	52	52
		F.	—	—	—	M.	53	53	53	53	53	53	53	53
		F.	—	—	—	M.	54	54	54	54	54	54	54	54
		F.	—	—	—	M.	55	55	55	55	55	55	55	55
		F.	—	—	—	M.	56	56	56	56	56	56	56	56
		F.	—	—	—	M.	57	57	57	57	57	57	57	57
		F.	—	—	—	M.	58	58	58	58	58	58	58	58
		F.	—	—	—	M.	59	59	59	59	59	59	59	59
		F.	—	—	—	M.	60	60	60	60	60	60	60	60
		F.	—	—	—	M.	61	61	61	61	61	61	61	61
		F.	—	—	—	M.	62	62	62	62	62	62	62	62
		F.	—	—	—	M.	63	63	63	63	63	63	63	63
		F.	—	—	—	M.	64	64	64	64	64	64	64	64
		F.	—	—	—	M.	65	65	65	65	65	65	65	65
		F.	—	—	—	M.	66	66	66	66	66	66	66	66
		F.	—	—	—	M.	67	67	67	67	67	67	67	67
		F.	—	—	—	M.	68	68	68	68	68	68	68	68
		F.	—	—	—	M.	69	69	69	69	69	69	69	69
		F.	—	—	—	M.	70	70	70	70	70	70	70	70
		F.	—	—	—	M.	71	71	71	71	71	71	71	71
		F.	—	—	—	M.	72	72	72	72	72	72	72	72
		F.	—	—	—	M.	73	73	73	73	73	73	73	73
		F.	—	—	—	M.	74	74	74	74	74	74	74	74
		F.	—	—	—	M.	75	75	75	75	75	75	75	75
		F.	—	—	—	M.	76	76	76	76	76	76	76	76
		F.	—	—	—	M.	77	77	77	77	77	77	77	77
		F.	—	—	—	M.	78	78	78	78	78	78	78	78
		F.	—	—	—	M.	79	79	79	79	79	79	79	79
		F.	—	—	—	M.	80	80	80	80	80	80	80	80
		F.	—	—	—	M.	81	81	81	81	81	81	81	81
		F.	—	—	—	M.	82	82	82	82	82	82	82	82
		F.	—	—	—	M.	83	83	83	83	83	83	83	83
		F.	—	—	—	M.	84	84	84	84	84	84	84	84
		F.	—	—	—	M.	85	85	85	85	85	85	85	85
		F.	—	—	—	M.	86	86	86	86	86	86	86	86
		F.	—	—	—	M.	87	87	87	87	87	87	87	87
		F.	—	—	—	M.	88	88	88	88	88	88	88	88
		F.	—	—	—	M.	89	89	89	89	89	89	89	89
		F.	—	—	—	M.	90	90	90	90	90	90	90	90
		F.	—	—	—	M.	91	91	91	91	91	91	91	91
		F.	—	—	—	M.	92	92	92	92	92	92	92	92
		F.	—	—	—	M.	93	93	93	93	93	93	93	93
		F.	—	—	—	M.	94	94	94	94	94	94	94	94
		F.	—	—	—	M.	95	95	95	95	95	95	95	95
		F.	—	—	—	M.	96	96	96	96	96	96	96	96
		F.	—	—	—	M.	97	97	97	97	97	97	97	97
		F.	—	—	—	M.	98	98	98	98	98	98	98	98
		F.	—	—	—	M.	99	99	99	99	99	99	99	99
		F.	—	—	—	M.	100	100	100	100	100	100	100	100
		F.	—	—	—	M.	101	101	101	101	101	101	101	101
		F.	—	—	—	M.	102	102</td						

TABLE IV. DEATH-RATES FROM ALL CAUSES IN WARDS.

YEAR.	Central Wards	Ladywood	St. Martin's	Bartolomew's	Duddeston and Nethills	St. Mary's	St. Paul's	St. Martin's	Balsall Heath	Edgbaston	All Saints'	Handsworth	Petty Bar	Erdington	Erdington	South	Erdington	Yardeley	Acco's Green	Kings Norton	Selly Oak	Moseley and Hockley	Sparkhill	Selly Oak	Kings's Norton	Northfield	Harborne	Outer Ring										
1912	19.6	26.0	22.0	20.2	18.2	16.6	17.1	20.0	13.7	14.4	13.4	11.3	10.5	11.9	12.3	10.8	13.4	14.9	12.7	11.0	8.3	10.4	?	9.8	9.811.4	11.0	9.5	9.911.0	10.5	8.8	10.2	10.1						
1913	20.1	24.6	21.2	24.0	22.0	19.1	17.1	21.2	13.2	16.5	13.6	13.3	13.1	13.2	12.7	12.0	17.1	15.3	14.0	13.9	9.6	9.5	?	9.4	9.4	9.812.5	9.7	9.012.2	8.6	8.9	9.9	10.2						
1914	21.4	24.9	21.2	21.2	20.2	19.6	21.2	21.2	14.3	16.6	12.9	11.7	11.2	13.4	12.6	12.3	15.8	15.1	13.6	12.5	10.6	11.2	?	11.7	9.711.1	11.1	8.8	9.711.3	9.8	10.0	10.0	310.7						
1915	22.5	24.5	18.6	21.8	20.6	16.6	17.0	20.2	13.6	15.0	12.0	12.3	11.2	13.0	13.4	12.0	14.5	13.2	13.6	11.5	11.0	?	11.4	9.8	9.310.8	10.2	9.912.2	10.6	12.7	11.5	11.1							
Average	20.925.0	20.821.5	20.520.1	17.720.6	13.715.6	13.012.1	11.512.9	12.711.8	15.214.9	13.412.7	10.512.1	11.512.1	11.512.1	11.512.1	11.512.1	11.512.1	11.512.1	11.512.1	11.512.1	10.510.5																		
1916	18.7	22.4	19.7	21.0	21.6	17.1	20.0	13.7	14.4	13.4	11.3	10.5	11.9	12.3	10.8	13.4	14.9	12.7	11.0	8.3	10.4	?	12.7	7.910.8	11.0	9.7	9.810.5	10.5	9.110.6	9.9	10.3							
1917	18.2	19.7	17.2	16.8	17.2	16.5	17.1	12.6	12.9	12.1	10.2	11.0	11.3	11.8	12.2	11.5	12.7	11.7	12.7	11.9	10.6	9.5	10.3	?	9.1	8.8	9.310.9	9.9	10.6	8.6	8.0	7.510.1	9.4					
1918	20.0	22.7	19.7	20.8	20.3	19.4	20.5	15.5	16.3	12.0	13.4	14.8	14.5	15.6	13.7	15.8	15.7	14.7	13.3	11.1	11.7	?	9.811.7	10.8	12.3	11.9	11.2	11.8	9.311.5	12.5	11.5							
1919	16.8	17.9	15.8	16.5	18.6	14.0	16.1	16.5	13.1	13.4	11.8	10.7	11.1	13.1	13.3	12.8	13.2	12.5	12.5	11.1	10.6	11.4	?	11.1	10.7	10.3	9	10.0	11.1	9.3	8.0	11.1	310.5					
1920	16.9	20.4	16.3	16.6	17.6	17.5	16.9	11.8	12.8	17.5	16.9	11.8	11.9	11.4	11.1	11.0	12.0	12.8	11.1	13.7	12.7	12.0	11.6	9.4	9.5	9.5	9.310.4	10.0	10.0	9.0	8.2	10.2	9.8					
Average	18.120.6	17.717.5	19.015.8	16.5	17.913.1	13.611.4	11.711.7	11.512.9	12.711.8	13.312.2	13.813.3	12.213.8	13.412.7	11.810.1	10.512.7	11.512.7	11.512.7	11.512.7	11.512.7	11.512.7	11.512.7	11.512.7	11.512.7	10.49.7	11.0.3	10.810.8	9.9210.8	10.3										
1921	14.7	17.4	13.7	14.2	13.6	14.6	12.6	14.4	11.7	12.1	11.0	9.9	9.2	10.5	10.2	11.4	10.7	11.4	12.5	12.4	12.5	12.1	13.7	13.3	12.6	12.2	12.9	11.0	5.7	7.6	7.8	8.7	8.2	9.2				
1922	15.1	15.5	13.2	15.9	16.7	15.1	14.8	15.2	12.3	12.6	10.4	10.1	11.0	9.12	10.9	12.1	11.5	12.7	11.7	12.7	11.9	10.6	9.5	10.4	?	10.7	10.1	9.2	9.6	10.6	12.3	10.4	7.8	9.5	10.1	10.1		
1923	13.7	17.1	13.7	13.5	14.0	12.1	12.5	13.8	11.8	11.8	11.6	10.1	8.4	9.7	10.4	10.9	10.6	10.4	10.6	10.3	8.9	9.8	?	8.9	8.1	8.3	8.7	9.4	11.0	8.0	8.8	8.1	7.9	9.8				
1924	14.1	15.5	13.4	14.4	15.4	14.9	13.1	14.5	12.3	12.2	8.9	10.1	11.0	8.0	10.8	10.1	10.8	10.1	11.8	11.2	8.9	9.8	?	10.6	8.9	9.5	10.0	10.0	10.1	9.0	10.0	8.9	9.8					
1925	14.9	17.7	13.2	14.5	14.1	15.4	12.6	14.5	12.8	14.1	9.7	9.2	9.7	9.0	7.8	9.7	11.8	11.9	11.9	11.3	12.5	12.8	11.6	12.0	8.1	9.3	9.3	8.1	9.6	8.8	9.8	8.6	8.3	9.3	9.5			
Average	14.516.6	13.414.6	15.014.0	13.1	14.512.2	12.510.0	9.410.3	11.112.0	11.011.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5	11.111.5												
1926	14.6	16.9	12.8	14.0	14.6	13.2	12.3	14.1	12.7	12.3	9.3	7.3	9.0	10.9	12.0	11.9	11.3	12.1	10.9	9.8	9.6	?	8.1	9.3	7.3	8.6	9.2	9.8	8.2	8.6	10.0	3	9.2					
1927	16.2	16.6	13.1	13.4	14.8	12.5	13.2	14.3	11.5	12.1	9.7	8.8	8.6	11.2	13.2	11.2	12.4	12.5	11.1	11.7	9.7	10.6	?	9.4	7.9	8.8	8.8	10.0	10.6	9.7	8.9	9.2	10.7	9.7				
1928	14.7	17.1	15.5	12.3	12.9	14.1	11.3	13.2	9.4	12.5	11.6	9.7	9.3	9.9	11.7	12.2	9.7	10.7	10.5	10.8	10.7	9.8	?	7.8	8.2	9.2	7.8	8.3	7.9	9.5	9.1	9.7	10.2	8.7				
1929	17.3	18.1	16.8	16.0	18.7	16.7	15.3	17.6	7.1	16.7	15.3	17.6	15.7	15.4	12.1	10.3	10.5	14.0	15.1	13.9	15.1	14.4	13.6	?	6.8	10.0	10.2	9.7	9.5	10.6	11.8	10.8	9.8	10.0	11.8			
1930	12.9	14.9	12.2	12.5	14.4	12.5	13.3	11.8	12.2	9.0	7.8	9.0	11.3	12.6	12.7	11.1	10.9	10.4	5.0	7.6	9.1	8.8	8.0	8.9	10.6	8.3	8.2	7.8	10.2	8.9								
Average	15.116.8	13.413.8	15.313.9	13.214.5	12.812.7	10.0	8.7	9.411.8	13.011.9	12.111.9	11.411.9	10.310.7	?	8.7	9.1	8.5	8.6	9.310.5	9.2	9.0	9.510.3	9.5																
1931	14.8	16.2	13.9	13.5	14.9	15.1	13.1	14.5	12.9	13.9	11.5	9.2	11.4	12.9	12.4	12.1	11.3	12.7	12.3	14.0	9.2	11.1	7.2	8.6	9.7	7.9	9.1	9.4	9.2	11.1	11.0	0						
1932	13.2	15.5	14.2	13.7	13.7	12.6	12.1	13.6	13.1	13.4	10.5	8.7	11.4	12.1	13.2	11.7	11.5	11.4	11.7	13.0	11.1	11.1	6.7	8.7	9.2	9.0	8.5	10.1	11.0	8.1	10.1	7.2	10.4	9.8				
1933	12.7	13.7	12.7	12.6	14.2	14.0	13.1	13.3	12.3	9.6	9.1	12.0	12.8	11.7	11.0	11.4	13.0	10.8	12.9	5.9	8.4	12.1	9.3	8.8	9.1	10.3	9.9	11.0	3	9.2	10.0	8.3	8.4	9.7				
1934	12.1	14.0	12.5	12.2	14.2	14.3	11.2	12.0	12.9	13.4	12.3	9.5	8.9	10.8	13.9	14.2	11.6	12.5	12.0	11.5	11.6	12.4	5.9	8.4	8.0	8.5	8.7	9.4	10.3	11.0	8.7	9.9	10.7	9.6				

TABLE V. DEATHS UNDER 1 PER 1,000 BIRTHS IN WARDS.

YEAR.	ST. PAUL'S	ST. MARY'S	ST. BARTHOLOMEW'S	DUDDESTON NECHILLS	ST. MARTIN'S	LADYWOOD	CENTRAL WARD	LOZELLS	ASTON	WASHWOOD HEATH	SMALL HEATH	SPARKBROOK	EDGEBASTON	BALSALL HEATH	ST. SAVIORS	MIDDLE RING	HARDSWORTH	SHOBO	SANDWELL	HARTRIDGE	FRIEDGTON	NORTH FRIEDGTON	SOUTH FRIEDGTON	YARDLEY	GREENACOCK'S	SPARKHILL	KINSEY'S HEATH	KINSEY'S NORTON	NORTHFIELD	HARBOURNE	OUTER RING		
1912	134	194	180	134	136	138	123	148	102	105	159	181	100	136	114	94	109	85	90	81	87	112	98	97	78	78	80	60	87				
1913	162	229	179	205	180	155	159	136	114	137	113	98	99	109	137	124	112	104	79	64	64	64	60	60	82	78	63	54	54	74			
1914	153	195	173	167	148	166	166	156	115	138	87	109	89	102	80	72	134	135	106	89	64	75	54	70	78	90	53	53	79	79			
1915	170	187	158	180	157	180	157	123	128	128	123	86	86	87	91	82	118	108	101	92	106	94	64	94	87	123	81	83	83	83			
Average	155	201	172	171	155	145	143	163	105	127	105	93	94	88	87	125	116	104	90	84	84	84	79	70	79	87	63	63	76	84	69	78	
1916	160	159	164	139	150	139	121	147	82	114	93	79	69	70	62	98	96	96	86	94	68	74	37	71	72	57	57	66	55	76	77		
1917	115	168	136	132	112	89	112	123	93	105	96	97	94	110	83	73	93	122	97	80	101	88	83	64	71	63	39	39	44	67			
1918	156	148	104	137	120	152	104	132	111	113	70	100	69	86	86	80	80	88	76	61	97	88	71	63	51	47	36	44	69				
1919	109	103	105	102	95	120	100	105	79	93	90	64	67	60	64	67	60	64	79	83	80	98	64	79	78	55	43	79	64				
1920	112	121	93	111	102	85	105	104	80	78	83	72	80	80	78	83	72	80	80	78	79	55	51	51	47	44	39	55	55				
Average	130	140	120	124	116	117	108	122	89	101	86	82	76	84	79	75	93	94	86	81	63	70	69	60	60	64	69	62	60	66	65		
1921	106	116	104	113	85	117	96	105	87	91	75	57	60	62	75	78	104	77	57	72	69	77	60	44	68	43	62	67	69	47	60	97	
1922	105	117	102	115	107	113	102	109	58	84	69	82	68	82	60	75	101	90	80	66	68	51	51	54	69	55	79	56	81	69	41	58	
1923	104	103	99	81	93	80	79	91	60	85	68	59	62	59	54	67	79	64	54	57	45	45	48	58	73	49	34	49	53	76	21	46	
1924	87	123	103	119	110	81	86	101	68	87	62	95	85	64	83	67	85	80	77	63	67	49	49	70	52	62	50	58	69	74	59	54	57
1925	120	100	101	106	107	119	73	104	87	104	69	65	58	77	64	70	53	92	74	66	39	64	74	70	54	32	45	53	39	39	60		
Average	104	112	102	107	100	102	87	102	72	88	72	75	66	70	69	68	77	89	74	61	61	56	56	54	54	59	54	61	59	60	54	49	57
1926	106	122	79	98	86	106	81	97	52	77	66	43	48	70	52	59	63	65	59	76	98	53	?	46	52	56	48	70	54	69	65	68	90
1927	115	116	104	81	89	85	78	95	78	80	73	64	34	73	64	56	89	82	73	81	44	47	?	59	49	66	36	71	42	61	44	45	78
1928	71	101	73	89	84	100	69	84	63	57	62	71	59	46	75	46	60	74	68	34	0	62	40	43	49	47	41	82	54	46	65	50	
1929	120	111	125	98	108	73	108	73	106	80	86	92	69	50	45	51	84	82	72	71	92	46	43	0	56	49	65	68	74	38	54	60	58
1930	89	75	67	74	91	88	74	80	53	61	37	54	42	55	69	77	63	67	58	65	38	47	63	51	55	51	51	49	36	38	53	49	
Average	100	105	90	88	92	90	82	92	65	72	66	47	60	64	66	74	66	78	59	45	?	55	48	57	48	63	45	67	51	51	69	55	
1931	85	107	87	86	99	103	105	96	86	87	76	59	48	61	70	83	100	80	75	33	60	57	55	55	63	45	49	66	44	37	55		
1932	92	105	98	77	87	76	69	86	52	97	87	46	63	62	74	74	66	66	75	37	63	53	53	53	68	47	76	43	43	57			
1933	82	73	72	100	85	79	75	81	56	59	70	54	64	72	69	74	66	60	65	60	65	37	38	76	68	68	68	68	68	59			
1934	66	85	87	101	81	106	84	87	77	70	56	42	48	112	68	69	65	66	64	66	64	64	62	34	34	62	64	64	64	64	64		

TABLE VI. BIRTH-RATES IN WARDS.

YEAR.	St. Paul's	St. Bartholomew's	Duddeston and Nethergills	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Washwood Heath	Small Heath	Saltley	Sparkbrook	Balsall Heath	Edgebaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Friethington	North	Sparks Hill	Moseley and Kings' Heath	Selly Oak	King's Norton	Northfield	Hartmore	Outer Ring					
1912	30.6	33.6	0.33	4.32	1.24	7.28	1.31	2	23.0	30.5	29.4	27.7	23.6	25.3	23.317.0	0.28	9.929.725.8	22.2	21.0	18.9	?	22.7	21.6	23.225.1	19.2	17.8	227.1	23.1	20.6	23.9	22.0				
1913	32.1	35.9	38.4	35.9	33.5	25.8	30.6	33.2	24.0	32.5	30.9	31.6	24.3	25.7	23.415.9	30.9	31.231.1	0.27	0.22	0.20	1	23.7	22.5	26.0	29.6	18.2	18.4	227.4	24.3	22.8	23.3	23.2			
1914	34.3	36.0	37.3	34.3	33.7	26.3	29.8	33.1	22.5	31.2	29.3	27.6	22.6	25.6	24.0	16.4	27.8	52.5	52.3	0.22	1.19	7	22.0	22.4	22.6	26.5	18.2	16.3	25.5	20.9	24.2	20.6	21.8		
1915	31.8	32.8	34.6	31.0	30.0	22.2	25.7	29.7	21.6	27.7	23.3	26.1	20.8	24.3	21.8	16.2	24.7	26.4	23.3	319.8	19.7	18.0	?	21.6	19.4	20.2	24.0	15.7	15.4	23.5	21.5	20.7	20.0		
Average	32.2	34.6	36.6	33.6	32.3	24.7	28.5	28.2	22.8	22.8	25.5	31.2	21.6	4.27	9.28	9.25	4.25	9.21	4.19	2	?	22.5	21.5	23.0	26.3	17.8	17.0	25.9	22.4	22.1	22.0				
1916	28.9	29.3	30.9	28.8	28.0	19.8	25.8	27.4	20.8	28.8	23.8	26.0	21.8	23.0	19.5	15.3	23.8	26.6	22.9	19.9	319.3	19.3	18.0	?	19.4	19.8	19.4	22.7	17.6	15.7	24.0	21.3	19.1	19.6	
1917	26.7	23.3	27.5	28.5	24.5	18.8	23.2	24.6	19.4	23.1	20.4	20.2	19.9	19.2	18.1	13.4	20.7	22.1	19.7	13.2	16.5	15.0	?	14.9	17.4	19.9	19.7	12.8	13.4	19.2	14.5	16.2	16.1		
1918	24.7	24.1	29.2	27.3	24.3	32.1	6.23	9.25	0.019	2.21	3.20	0.20	1.18	6.18	0.18	2.13	8.21	0.22	4.19	3.14	7.12	5.14	4	?	16.2	15.9	15.8	8.18	1.13	0.13	5.18	1.1	16.3	20.9	
1919	29.1	28.6	29.6	29.5	29.0	29.1	21.5	26.6	6.27	6.18	5.24	4.21	2.19	3.17	7.19	8.18	5.15	0.22	0.23	3.20	0.17	3.14	7.16	0	?	17.2	19.2	18.1	18.2	14.5	14.8	21.1	15.0	17.2	15.8
1920	37.6	37.2	39.6	35.9	34.9	30.2	33.5	6.25	2.32	0.27	9.28	6.23	4.25	9.25	5.11	8.8	30	2.31	3.26	8.23	8.21	7.21	4	?	24.7	22.8	26.4	24.4	19.3	19.9	26.7	21.3	22.9	19.7	
Average	29.4	28.5	31.3	29.9	28.2	22.4	22.4	24.6	26.6	28.0	6.25	9.22	7.22	8.20	3.21	2.19	9.15	3.23	5.25	1.21	7.11	7.16	9.17	0	18.5	19.0	20.5	20.7	15.4	15.5	21.8	17.7	19.3	16.9	
1921	31.8	35.7	32.9	33.2	3.30	8.28	0.30	8.31	8.21	8.28	7.23	8.23	9.20	5.23	8.22	5.15	2.24	8.25	0.23	0.20	1.16	17.7	?	21.1	20.0	20.5	21.0	19.0	19.6	20.2	19.6	20.2	19.2		
1922	29.7	30.8	27.5	28.5	24.5	18.8	23.2	31.8	3.25	4.21	9.20	6.18	3.20	2.21	5.14	1.22	6.23	6.20	7.18	7.15	0.15	4	?	20.7	15.7	18.9	18.0	17.4	14.3	17.6	17.6	17.5	17.1		
1923	28.2	30.3	32.7	5.29	0.27	0.20	7.25	8.26	9.18	4.23	1.22	1.21	6.15	5.18	6.13	5.21	7.21	9.19	5.16	0.14	1.14	2	?	18.1	16.8	17.4	17.0	17.1	13.2	17.7	17.1	12.0	8.13	0	
1924	28.0	28.1	27.0	26.8	24.1	20.7	21.9	2.23	1.20	7.21	9.25	2.17	4.23	1.20	6.18	4.14	1.16	9.18	4.13	3.19	3.20	6.18	2.15	1	?	17.1	17.7	15.0	0.16	16.7	12.8	15.7	14.5	19.8	14.5
1925	23.5	28.3	32.5	3.25	1.24	6.19	5.22	2.24	1.16	7.22	5.19	7.14	6.16	4.17	0.12	0.19	9.20	1.17	9.16	3.12	4.12	6	?	20.3	14.9	16.3	16.7	11.5	16.0	14.2	17.7	11.0	15.2		
Average	28.2	30.6	28.0	32.7	0.21	9.21	18.5	24.6	21.6	21.6	21.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6				
1926	25.4	27.8	24.8	24.8	8.24	8.23	8.18	9.22	9.24	1.17	6.20	4.18	8.19	8.15	3.15	5.4	17.0	12.1	11.8	0.19	4.17	4.14	4.12	6.11	1.0	?	20.8	14.8	16.5	14.3	11.2	14.1	16.5	11.5	14.6
1927	25.4	25.8	23.1	23.3	3.22	0.19	2.20	4.22	7.16	4.19	9.17	7.17	7.15	2.15	5.316	0.11	6.16	5.17	6.17	6.16	4.14	1.12	5.11	7.1	?	20.3	14.8	18.9	14.3	11.2	15.4	17.6	11.2	15.0	
1928	24.0	27.3	22.4	21.4	5.22	2.18	4.18	9.22	1.16	1.19	8.17	7.51	7.7	1.25	5.316	5.11	4.17	1.18	8.21	6.16	5.10	2	8.4	18.5	15.2	19.9	9.18	8.17	7.12	6.13	12.3	15.3			
1929	23.8	25.6	20.4	20.4	4.21	5.22	3.19	1.19	8.21	8.15	3.17	8.16	4.17	4.14	2.11	0.15	8.17	0.15	8.17	0.15	8.17	0.15	8.17	0.15	8.17	0.15	8.17	0.15	8.17	0.15	8.17	0.15	14.9		
1930	22.5	25.3	3.21	6.20	9.21	8.17	6.19	5.21	3.16	4.18	8.15	6.14	4.15	6.15	4.15	6.14	4.15	6.15	2.12	3.18	4.18	4.16	0.11	8.10	5.11	7.27	7.18	9.18	1.17	5.21	1.16	7.13	1.13	12.6	
Average	24.2	26.4	22.5	22.4	4.22	4.18	6.20	3.22	4.16	4.19	3.17	2.17	4.15	2.15	2.15	8.11	7.17	2.18	1.16	3.12	9.11	5.11	3	?	19.4	15.9	8.21	7.17	7.16	7.13	3.13	4.13	4.17	5.12	1.15
1931	21.4	22.2	20.5	21.2	19.9	17.6	17.7	20.1	15.7	19.4	15.9	14.3	14.7	15.4	15.0	10.7	11.2	6.34	8.17	4.15	9.15	2.18	7.15	7.13	4.13	6.12	2.22	9.12	4.16	1					
1932	21.5	20.6	21.5	20.2	18.6	15.5	19.4	19.6	16.3	16.3	16.0	16.6	16.1	16.4	16.5	16.0	16.7	17.0	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
1933	18.9	19.3	18.1	18.7	18.4	17.7	16.2	18.2	13.1	15.0	13.1	12.7	12.4	14.7	13.4	8.6	13.9	9.13	8.13	11.0	5.10	2.11	4.22	2.11	3.8	13.2	10.8	12.8	11.3	10.4	13.4	13.4	13.4	13.4	
1934	18.5	20.2	19.8	17.7	18.5	17.5	19.2	15.7	16.8	21.4	7.16	5.14	1.12	2.12	6.15	2.13	5	9.0	14.2	14.0	13.6	11.0	1.11	0.23	8.13	2.15	1.12	6.11	4.20	9.11	2.14	1.11	2.14	1.11	

TABLE VII.

Cases of Infectious Disease notified during the Year 1934. Classified according to sex and ages.

DISEASE.	Sex.	AGES.										TOTALS.				
		0-	1-	2-	3-	4-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75 up.
Enteric Fever	—	—	—	2	7	2	3	1	2	1	1	1	—	—	19
Scarlet Fever	—	—	—	2	1	2	3	4	3	1	1	1	—	—	21
Diphtheria	6	45	384	732	232	58	30	36	14	14	2	1	—	—	1,540
Erysipelas	10	37	391	731	355	91	67	54	14	14	6	1	—	—	1,757
Pulmonary Tuberculosis	12	21	150	207	74	12	15	15	4	4	—	—	—	—	510
Tubercular Meningitis	2	10	108	208	69	38	30	38	3	3	2	1	—	—	509
Tuberculosis of Peritoneum and Intestines	13	2	10	14	6	11	11	33	48	59	59	26	8	—	300
Other forms of Tuberculosis	14	6	5	5	11	12	18	25	51	71	76	35	15	393	
Encephalitis Lethargica	2	5	17	24	18	48	95	135	99	110	64	28	4	4	649
Cerebro-Spinal Fever	2	5	14	29	28	83	88	134	67	54	23	8	3	3	538
Pneumonia	1	1	3	7	3	—	2	—	—	—	—	—	—	—	15
Puerperal Fever	—	—	1	5	1	1	1	1	—	—	1	—	—	—	11
Puerperal Pyrexia	—	—	3	12	13	1	2	2	—	2	1	2	—	2	16
Ophthalmia Neonatorum	—	—	1	13	7	9	11	13	11	2	3	3	6	6	11
Total	821	330	1,477	2,290	923	491	559	966	647	561	386	213	79	9,743	—

TABLE VIII.
Cases of Infectious Disease notified during the Year 1934. Classified according to Wards.

DISEASE.	All Saints'	Green.	Astoun.	Balsall Heath	Duddeston and Neckhill	Fedgebaston	Fringington (North)	Fringington (South)	Hanburyworth	King's Norton	Ladyswood	Lozells	Market Hall	Moseley and King's Heath	St. Bartholomew's	St. Martin's	St. Paul's	Sandwell	Small Heath	Selly Oak	Shore	Sparkebrook	Washwood Heath	Wardley	Not Located	City							
Enteric Fever ...	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40							
Continued Fever	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4							
Malaria ...	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
Trench Fever ...	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
Smallpox	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Scarlet Fever ...	264	90	53	59	197	52	166	84	31	78	69	71	31	25	29	13	50	34	36	27	45	37	37	18	8	32							
Diphtheria	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Dysentery ...	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
Erysipelas	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Pulmonary Tuberculosis	55	43	34	43	67	33	37	23	36	17	18	34	40	24	25	31	25	50	51	84	51	47	50	20	31	35							
Tubercular Meningitis	2	1	1	1	1	1	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Tuberculosis of Peritoneum and Intestines	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Tuberculosis of Spinal Column	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Tuberculosis of Joints	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Tuberculosis of Other Organs	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Disseminated Tuberculosis	...	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Cerebro-Spinal Fever	...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Poliomyelitis	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Polio-encephalitis	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Pneumonia	...	142	91	126	76	238	50	78	77	27	29	86	60	44	56	83	73	102	95	120	108	80	104	15	41	82							
Puerperal Fever	...	9	1	5	3	4	3	6	5	2	3	4	3	1	3	6	2	11	5	4	2	3	1	4	2	4							
Puerperal Pyrexia	...	13	7	5	3	34	8	5	4	2	6	3	4	3	9	5	11	5	4	12	8	4	3	6	5	8							
Ophthalmia Neonatorum	22	19	29	21	44	5	15	9	7	2	4	14	11	6	4	9	25	14	42	30	25	27	4	3	26	8							
TOTAL ...	626	298	334	247	737	198	400	242	137	160	149	221	235	159	221	425	411	313	332	439	357	288	406	131	248	289	174	289	300	334	291	324	9767

TABLE IX. PULMONARY TUBERCULOSIS. CASE-RATES IN WARDS.

YEAR.	St. Paul's	St. Mary's	Duddleston and Necthells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Aston	Washwood Heath	Sahley	Small Heath	Sparkbrook	Edgbaston	Balsall Heath	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington North	Erdington South	Vardeley	Greenock's	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring														
Average	5.646	495.80	8.046	985.585	776	333	394.083	704.394	734.304	903.244	385.094	222.522	022.68	?	1.732	283.043	593.382	332.462	.891.632	752.56	?	2.142	282.212	742.421	632.471	752.191	.692.21	?	1.421	341.381	281.621	131.250	981.321	251.27	?										
1912	7.647	636.70	9.767	226.927	477.624	534.924	185.876	144.285	823.944	756.305	0.072	532.373	46	?	1.613	0.083	495.084	843.323	243.241	783.633	21	2.252	212.313	582.811	332.791	971.821	852.33	?																	
1913	5.137	146.44	10.638	497.296	0.57313	224.853	795.354	854.975	843.914	815.184	6882.701	702.79	?	1.232	433.664	373.872	862.952	901.182	892.73	?	2.292	0.052	182.672	561.731	422.741	93.2	362.24	?	2.412	192.182	222.271	432.242	701.652	132.07	?										
1914	4.535	745.13	6.886	164	215.425	442.593	523.642	874.064	284.122	714.724	563.712	762.322	17	?	1.811.562	822.222	403.244	343.422	111.682	30	?	1.811.562	822.222	403.244	343.422	111.682	30	?	1.421	341.381	281.621	131.250	981.321	251.27	?										
1915	5.255	444.94	4.896	0.073	3.924.144	953.223	023.193	483.863	673.822	403.244	343.422	111.682	30	?	2.412.192.182	132.031	832.431	652.041	1782.14	?	2.412	192.182	222.271	432.242	701.652	132.07	?																		
1916	5.116	756.64	6.665	664	4.334	305.643	873.533	994.194	443.673	152.814	053.943	762.862	352.78	?	1.662	172.502	652.531	642.272	141.871	192.20	?	1.441	461.811	472.051	622.410	770.731	831.391	46	?																
1917	5.265	674.52	6.324	366.125	203.473	033.422	293.342	853.122	163.623	773.112	172.612	59	?	2.252	212.313	582.811	332.791	971.821	852.33	?	1.711	401.451	1.201	880.841	740.671	811.441	31	?																	
1918	5.464	424.34	5.335	325.666	805.333	133.092	722.083	403.403	562.972	814.043	353.121	381.983	48	?	2.242	462.152	662.492	122.531	353.331	802.31	?	1.521	391.391	1.351	571.311	041.091	1.221	081.25	?																
1919	4.304	944.13	4.004	453.994	144.283	303.222	051.992	302.622	792.224	022.892	742.551	352.89	?	2.142	361.902	702.231	1.222	341.661	901.812	08	?	2.412	192.182	222.271	432.242	701.652	132.07	?																	
1920	3.634	914.09	4.234	132.624	123.962	562.952	392.482	112.612	751.504	163.202	672.811	482.84	?	2.412	192.182	132.031	832.431	652.041	1782.14	?	2.412	192.182	222.271	432.242	701.652	132.07	?																		
Average	4.755	344.74	5.314.78	4.554.704	883	273.162.912	613.123.06	2.962.303.983	433.082.351	95.92	2.351.952.92	92	?	2.142	282.212	742.421	632.471	752.191	.692.21	?	1.421	341.381	281.621	131.250	981.321	251.27	?																		
1921	3.133	493.41	2.513.012	802.552	992.202	652.111	761.582	212.001	282.332	262.041	541.082	0.09	?	1.441	461.811	472.051	622.410	770.731	831.391	46	?	1.711	401.451	1.201	880.841	740.671	811.441	31	?																
1922	2.233	202.80	2.473.422	402.212	681.591	91.741	811.171	441.412	171.411	631.211	601.150	621.17	?	1.711	401.451	1.201	880.841	740.671	811.441	31	?	1.521	391.391	1.351	571.311	041.091	1.221	081.25	?																
1923	2.133	143.20	2.513.882	461.972	761.901	951.791	411.411	691.882	221.402	281.601	811.400	611.31	?	0.921	521.271	341.251	1.110	931.341	281.531	23	?	1.490	920.991	0.061	1.340	0.751	1.141	0.011	470.811	112	?														
1924	2.163	022.69	2.404.392	112.102	701.652	431.881	621.541	322.091	1.012	201.621	741.380	761.31	?	0.921	521.271	341.251	1.110	931.341	281.531	23	?	1.490	920.991	0.061	1.340	0.751	1.141	0.011	470.811	112	?														
1925	1.542	372.22	2.443.411	901.852	251.592	051.371	341.441	0.091	1.581	1.091.621	101.431	190.971	47	?	1.421	341.381	281.621	131.250	981.321	251.27	?	1.421	341.381	281.621	131.250	981.321	251.27	?																	
Average	2.243	042.86	2.473.622	332.142	681.792.161	461.541	582.011	202.011	681.721	330.811	47	?	1.421	341.381	281.621	131.250	981.321	251.27	?	1.712	201.711	791.991	491.861	221.130	991.141	460.861	411.401	291.060	971.02	?	0.970	971.110	860.890	691.110	831.380	850.98	?								
1926	2.282	502.21	1.892.521	461.622	071.621	981.861	300.831	221.850	971.331	131.410	640.961	27	?	0.951	0.030	780.881	0.020	671.210	832.061	321.05	?	1.711	401.451	1.201	880.840	740.671	811.441	31	?																
1927	2.012	872.14	1.972.24	1.901.902	151.361	691.051	450.951	141.531	021.521	351.301	430.870	61	?	0.630	720.870	530.910	871.331	161.300	70.92	?	1.928	1.522	28	1.802.521	1.711.250	1.750.091	0.921.171	0.930.711	0.930.711	0.930.711	?														
1928	1.902	522.28	1.802.521	1.551.892	071.481	821.060	981.121	1.291.100	0.921.341	1.561.271	231.081	250.000	?	0.921	521.271	341.251	1.110	931.341	281.531	23	?	1.711	401.451	1.201	880.840	740.671	811.441	31	?																
1929	2.081	902.45	1.501.982	071.461	921.271	920.950	970.921	1.711.270	751.541	1.551.231	090.901	90.972	501.090	?	0.831	521.271	341.251	1.110	931.341	281.531	23	?	1.711	401.451	1.201	880.840	740.671	811.441	31	?															
1930	2.051	661.74	1.411.761	1.552.061	1.751.721	891.160	931.150	871.530	1.301	391.651	301.091	2260.921	0.031	?	0.581	521.271	341.251	1.110	931.341	281.531	23	?	1.711	401.451	1.201	880.840	740.671	811.441	31	?															
Average	2.062	292.16	1.712	201.711	791.991	491.861	221.130	991.141	460.861	411.401	291.060	971.02	?	0.970	971.110	860.890	691.110	831.380	850.98	?	1.712	492.38	1.681.942	2.261.902	0.051.551	591.181	201.481	351.400	921.382	1.214.211	421.421	1.150	781.100	940.870	740.870	561.200	820.890	980.980	?						
1931	1.712	762.97	1.741.541	1.452.211	911.191	1.751.111	1.331.031	1.191.390	1.431	1.581	1.581	1.430	1.430	?	1.712	401.451	1.201	880.840	740.671	811.441	31	?	1.712	401.451	1.201	880.840	740.671	811.441	31	?															
1932	1.691	762.97	1.741.541	1.452.211	911.191	1.559	1.541	1.711	1.731	1.561	1.671	1.110	0.840	?	1.691	762.97	1.741.541	1.452.211	911.191	1.559	1.541	1.711	1.731	1.561	1.671	1.110	0.840	?	1.691	762.97	1.741.541	1.452.211	911.191	1.559	1.541	1.711	1.731	1.561	1.671	1.110	0.840	?			
1933	1.361	862.21	1.811.591	1.541	1.711	1.731	1.331	1.711	1.291	1.100	0.981	1.011	1.111	0.311	?	1.361	862.21	1.811.591	1.541	1.711	1.731	1.331	1.711	1.291	1.100	0.981	1.011	1.111	0.311	?	1.361	862.21	1.811.591	1.541	1.711	1.731	1.331	1.711	1.291	1.100	0.981	1.011	1.111	0.311	?
1934	1.741	791.73	1.502	1.911	1.731	1.331	1.711	1.340	1.981	1.231	1.121	0.311	2.270	1.961	?	1.741	791.73	1.502	1.911	1.731	1.331	1.711	1.340	1.981	1.231	1.121	0.311	2.270	1.961	?	1.741	791.73	1.502	1.911	1.731	1.331	1.711	1.340	1.981	1.231	1.121	0.311	2.270	1.961	?

TABLE X.

Meteorology and Mortality in each week of the year 1934.

No.	WEEK. Ending. 1934.	Total Deaths.	Deaths under 1 year.	DEATHS FROM:						TEMPERATURE				Horizontal Move- ment of Air in Miles.	Hours of Sunshine.	Rainfall in Inches
				Measles.	Whooping Cough.	Diarrhoea and Enteritis under 2.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	Respiratory Diseases.	Highest in Shade.	Lowest in Shade.	Mean of Daily Maxima and Minima.	Highest 4 feet Deep.			
1	Jan. 6	334	32	—	1	5	18	1	86	49	29	38.4	45.0	1595	9.3	0.16
2	" 13	307	35	—	2	—	11	3	70	49	32	41.6	45.2	2218	13.6	1.79
3	" 20	290	32	1	2	1	16	1	51	56	30	41.7	45.3	2247	15.4	0.71
4	" 27	239	24	—	2	2	14	1	38	45	27	36.1	45.2	1507	13.3	0.43
5	Feb. 3	269	21	—	2	—	18	—	39	44	29	36.8	44.5	1391	9.1	0.12
6	" 10	259	29	—	5	3	20	3	36	49	35	41.8	44.2	1960	18.3	0.02
7	" 17	260	29	—	6	4	17	2	28	50	30	38.7	44.3	943	15.6	0.00
8	" 24	233	27	—	2	2	22	1	39	53	28	40.2	44.3	1305	26.3	0.18
9	Mar. 3	271	26	—	3	1	18	1	35	47	26	37.2	44.3	2054	28.8	0.10
10	" 10	246	17	1	2	1	13	1	32	51	33	41.2	43.8	1581	31.8	0.55
11	" 17	282	23	2	5	—	12	3	36	47	32	39.5	43.9	1788	11.4	0.88
12	" 24	244	23	2	6	1	17	2	29	51	33	41.5	43.7	1517	18.1	0.46
13	" 31	247	18	2	6	2	11	1	37	60	30	43.1	44.2	1366	36.3	0.05
14	April 7	286	21	—	5	1	20	2	52	52	31	40.6	44.2	1928	18.7	0.05
15	" 14	315	37	2	3	4	16	4	65	58	32	44.8	44.2	1602	18.8	0.67
16	" 21	312	28	1	3	1	21	1	39	70	38	50.9	45.6	1667	41.6	0.32
17	" 28	231	27	—	5	3	11	1	37	56	36	45.6	45.8	1556	27.5	1.15
18	May 5	231	23	1	6	2	13	2	31	68	39	52.1	46.6	1202	39.1	0.18
19	" 12	200	17	1	5	3	9	2	19	76	39	55.9	47.3	1408	37.0	0.38
20	" 19	198	14	—	2	1	18	2	23	60	34	47.7	48.0	2184	42.4	0.23
21	" 26	221	28	—	8	4	14	2	26	69	39	53.9	48.3	1585	35.0	0.12
22	June 2	205	20	1	5	2	8	3	22	71	43	55.9	49.0	1707	57.3	—
23	" 9	213	22	—	3	1	16	4	18	67	43	55.1	50.2	1470	39.3	0.12
24	" 16	193	21	—	3	5	19	1	15	76	46	63.6	51.6	905	44.3	0.03
25	" 23	221	19	1	2	2	17	1	20	80	48	60.1	52.8	1896	42.8	0.49
26	" 30	160	12	—	—	5	11	1	13	76	48	57.9	52.6	1604	34.5	0.37
27	July 7	197	22	—	4	4	10	2	14	84	51	67.4	53.6	961	79.5	—
28	" 14	197	21	1	1	4	12	1	10	87	53	68.6	55.3	1264	61.8	0.40
29	" 21	189	.8	2	—	1	11	2	11	80	52	64.4	55.6	1264	44.7	0.17
30	" 28	201	23	—	1	6	16	2	16	76	50	62.5	55.9	1904	39.0	0.08
31	Aug. 4	169	12	2	3	1	15	2	15	75	48	62.0	55.9	1647	44.2	0.54
32	" 11	140	13	2	1	—	16	2	9	72	50	61.0	55.8	1490	18.8	1.12
33	" 18	179	20	1	—	6	13	—	14	76	48	60.6	55.7	1335	30.6	0.32
34	" 25	184	19	—	1	7	15	2	11	69	45	58.4	55.6	1665	59.5	0.41
35	Sept. 1	152	12	—	2	4	20	1	7	74	43	56.4	55.3	1146	53.8	0.32
36	" 8	173	17	—	2	4	12	4	10	76	44	59.4	55.0	1590	41.2	0.45
37	" 15	187	21	—	—	4	10	2	9	78	45	62.7	55.2	1269	39.5	0.07
38	" 22	145	13	—	—	7	6	—	10	70	44	55.9	55.6	1572	19.6	0.63
39	" 29	206	14	—	—	2	10	1	11	76	44	55.0	55.1	1812	30.7	0.81
40	Oct. 6	163	16	—	1	—	10	2	13	64	42	52.4	54.6	1869	17.9	0.31
41	" 13	179	11	—	—	4	5	2	5	65	43	54.1	54.1	1484	20.1	0.10
42	" 20	185	15	—	—	5	17	1	9	58	33	48.5	53.7	2090	9.2	0.66
43	" 27	186	16	—	—	2	11	1	9	62	41	51.4	52.8	1212	21.3	0.44
44	Nov. 3	174	20	—	—	5	14	1	7	52	31	40.6	52.6	1567	27.5	0.32
45	" 10	203	14	—	1	2	13	1	18	45	33	40.9	50.8	1739	2.3	1.17
46	" 17	197	21	—	—	2	16	2	11	48	34	42.0	49.5	1298	2.0	0.62
47	" 24	236	16	—	1	—	16	1	26	52	35	45.4	49.0	731	13.3	0.01
48	Dec. 1	211	21	—	1	4	12	—	20	52	40	46.7	49.4	927	3.9	0.32
49	" 8	200	17	—	3	11	2	22	56	42	49.6	49.6	1761	3.5	1.55	
50	" 15	206	21	—	1	15	—	20	53	39	45.6	49.7	1615	8.0	0.90	
51	" 22	186	13	—	1	9	2	16	51	36	44.6	49.4	1398	10.1	0.41	
52	" 29	212	17	—	1	13	1	22	51	35	42.5	49.0	1558	2.2	1.18	

INDEX.

	Page		Page
A		M	
Acts, new, in force ...	19	Maternal Mortality ...	110
Analytical Laboratory ...	19	Maternity and Child Welfare ...	101
Anterior Poliomyelitis ...	60	Maternity Feeding Centres ...	123
Ante-natal Clinics ...	121	Maternity Homes ...	130, 135
Anti-tuberculosis Centre ...	82	Medical Inspection of Pre-School Children ...	120
Anthrax ...	52	Measles ...	55, 147, etc.
Area of City ...	7	Meat ...	48, 50
B		Mental Defectives ...	18
Babies' Hospital ...	127	Midwives ...	18, 140
Bacteriological Laboratory ...	19	Milk, Provision of at Centres ...	124
Births ...	102, 152	Milk Supply ...	41
Birth-rate ...	102, 147, 155	Mortuary—Summer Lane ...	35
Birth Control Clinics ...	143	Mothercraft Shield ...	126
Blind Persons' Act, 1920 ...	25	N	
Bronchitis ...	15	Neo Natal Mortality ...	107
C		Nervous Diseases ...	147, etc.
Canal Boats ...	33	Nuisances ...	29
Cancer ...	12, 147, etc.	Nursing ...	18
Carnegie Institute ...	124	Nursing Homes ...	142
Cerebro Spinal Fever ...	61	O	
Child Mortality ...	109	Offensive Trades ...	32
Child Welfare Centres ...	115	Officers, Public Health ...	17
Children and Young Persons Acts ...	138	Ophthalmia Neonatorum ...	114
Circulatory Diseases ...	14, 147, etc.	Overcrowding ...	39
City General Hospitals ...	21	P	
City Infectious Diseases Hospitals ...	62	Parents' Guidance Clinic ...	125
Clearance Areas ...	38	Pemphigus Neonatorum ...	114
Closet Accommodation ...	28	Pneumonia ...	15
Common Lodging Houses ...	32	Polioencephalitis ...	60
Convalescent Homes ...	24, 129	Poliomyelitis ...	60
Cows and Cowsheds ...	43	Poor Law Medical Out Relief ...	18
D		Population ...	7, 147
Deaths ...	8, 148	Public Health Officers ...	17
Deaths by age and sex ...	9	Puerperal Sepsis ...	113, 147
Death-rates ...	8, 147, etc.	Pype Hayes Convalescent Home ...	129
Dental Clinics ...	86, 123	R	
Diarrhoea ...	147, etc.	Rateable Value ...	7
Digestive Diseases ...	147, etc.	Rats and Mice ...	30
Dinners for Mothers and Children ...	123	Refuse Disposal ...	28
Diphtheria ...	58, 147, etc.	Remedial Exercise Clinics ...	122
Diphtheria Immunisation ...	59	Respiratory Diseases ...	15, 147, etc.
Disinfection ...	73	Rivers and Streams ...	27
Dudley Road Hospital ...	22	S	
Dysentery ...	60	Sanatoria ...	92
E		Sanitary Inspection ...	29
Ear, Nose, Throat and Eye Conditions ...	123	Scarlet Fever ...	56, 147, etc.
Encephalitis Lethargica ...	60	Scavenging ...	28
Enteric Fever ...	54, 147, etc.	Selly Oak Hospital ...	23
F		Selly Oak Infirmary ...	24
Factories and Workshops ...	31	Sewerage ...	27
Food, Inspection of ...	41, 49	Shops Acts ...	34
Food Poisoning ...	60	Slaughterhouses ...	47
Foster Mother Service ...	139	Smallpox ...	54, 147, etc.
G		Smoke Abatement ...	31
Genito-Urinary Diseases ...	147, etc.	Staff ...	17
Glandular Fever ...	54	Statistics, Vital, during 1934 and Previous Years ...	147
Gonorrhoea ...	99	Stillbirths ...	108
Guidance Clinic for Parents ...	125	Suicide ...	147, etc.
H		Syphilis ...	99
Health Visitors ...	115	T	
Heathfield Road Maternity Home ...	135	Tents, Vans and Sheds ...	33
Heart Diseases ...	14, 147, etc.	Toddlers' Educational Classes ...	119
Home Helps ...	127	Tonsils and Adenoids ...	123
Hospital, Babies' ...	127	Training Course for Health Visitors ...	115
Hospitals, City General ...	21	Treatment of Ear, Nose, Throat and Eye Conditions ...	123
Hospitals, City Infectious ...	62	Tuberculosis ...	74, 147, etc.
Hospitals, Voluntary ...	20, 21	Tuberculosis and Milk Supply ...	44
House Inspection ...	29, 37	Tuberculosis Dispensary ...	82
Houses Let in Lodgings ...	32	Tuberculosis Sanatoria ...	92
Houses, No. of ...	36, 37	Tuberculosis Visitors ...	80
Housing ...	36	Tuberculosis, Care Work ...	81
I		U	
Ice Cream ...	41	Unmarried Mothers ...	137
Illegitimacy ...	103, 108	Ultra-Violet Light Clinics ...	96, 122
Immunisation against Diphtheria ...	59	Undulant Fever ...	54
Infant Life Protection ...	138	V	
Infant Mortality ...	104, 147, etc.	Vaccination ...	55
Infectious Diseases ...	53	Venereal Diseases ...	99
Infirm and Aged Persons ...	26	Visitors, Health ...	115
Institutions, Deaths in ...	20	Visitors, Tuberculosis ...	80
L		Violence ...	147, etc.
Laboratory Facilities ...	19	W	
Legislation, New, in Force ...	19	Wake Green Road Maternity Home ...	130
Light Clinics ...	96, 122	Walker Mothercraft Shield ...	126
Lodging Houses ...	32	Wards, Mortality in ...	10, 150, 153, 154
Lordswood Nursery ...	129	Water Supply ...	27
		Wells ...	27
		Whooping Cough ...	57, 147, etc.
		Workshops ...	31

